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THE SPHERE

Vol. CLXIV No. 2148 — WITH WHICH IS INCORPORATED THE GRAPHIC — MARCH 22 1941

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The Smiths

prefer patriotism

Mr. Smith: I've just got the estimate for that job we were going to have done.

Mrs. Smith: Not too expensive, I hope?

Mr. Smith: It's very reasonable; but I hate to disappoint you, dear. I've come to the conclusion this is one of those things that ought not to be done in war time.

Mrs. Smith: Oh, how depressing! And I'd set my heart on it, too.

Mr. Smith: I know you had; so had I. But it would have used up material and labour which will be much better employed in helping to win the war.

Mrs. Smith: But we've been saving up for it for such a long time. After all it isn't as if we haven't done our bit. We've both got our full ration of Savings Certificates. Surely . . . .

Mr. Smith: I know, old girl, but that's not enough. While Hitler's still on the warpath we mustn't spend on anything we can do without. I think we should go on helping to bring victory nearer by putting this money into Defence Bonds. They're a pretty good proposition, pay a steady 3% and are always worth what you gave for them.

Mrs. Smith: Then we can carry out our little scheme after the war?

Mr. Smith: . . . . and be able to make a jolly sight better job of it, too!

Mrs. Smith: That'll be marvellous. Darling, I think you're right. After what you've said, perhaps I *wouldn't* feel happy about spending that money at the present time.

Save regularly week by week. *Go to a Post Office or your Bank or Stockbroker and put your money into* 3% *Savings Bonds* 1955-1965, 2½% *National War Bonds* 1946-1948, *or* 3% *Defence Bonds; or buy Savings Certificates; or deposit your savings in the Post Office or Trustee Savings Banks. Join a Savings Group and make others join with you.*

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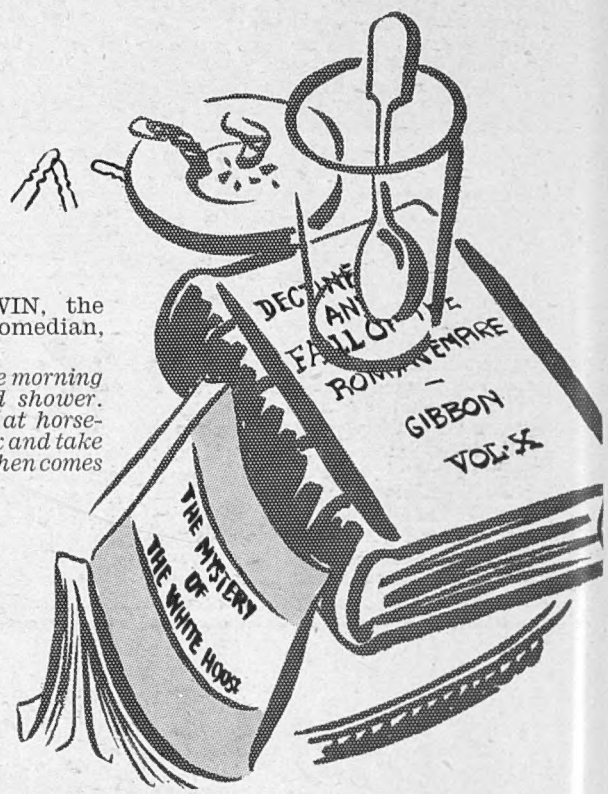
What's your recipe for SLEEP?



NAT GOODWIN, the American comedian, once wrote:

"I get up early in the morning and take a brisk cold shower. After an energetic go at horse-back riding I come back and take another cold shower. Then comes eighteen holes of golf. In the evening I eat a light dinner and then read a light and engaging book. After a warm bath I go to bed — and not a wink can I sleep all night!"

Most of the traditional recipes for sleep are like the advice given for slimming: the cure is worse than the complaint, demands a re-organization of one's whole life, and on top of that, as Nat Goodwin found, produces no result!

THE famous experiments conducted by Dr. Glenville Giddings provided scientific evidence that two of the most popular beliefs about sleep are false. After studying the sleep of 28 children for 364 nights (their every movement was electrically recorded) Dr. Giddings stated that the following conclusions, among others, could be drawn:

"The giving of baths, either warm or cold, on retiring, seems to have no effect, either in the production of, or in the interference with sleep in normal children."

"The drinking of a beverage containing 3|5ths of a grain of caffeine" (the substance in coffee that is supposed to keep one awake) "produces no more restlessness than was seen after the drinking of an equal amount of orange juice."

Dr. Giddings' experiments *confirmed* one of the other popular beliefs, namely, that one should not take a heavy meal at bedtime:

"The taking of a large amount of food at the evening meal, even though the food might be considered plain food, resulted in marked restlessness. In many cases the restlessness continued throughout the night," he wrote.

ANOTHER famous research scientist, Mr. H. M. Johnson of the Mellon Institute, has studied the effects of *noise* on sleep. In his own words, he "accumulated a mass of negative evidence."

He found, for example, that "the time of the night when the patient stirs the least is *not* the time at which street noises are at a minimum." Also, deaf people as a class do *not* rest more quietly than normal people. Even stronger evidence to prove that noise has little influence on sleep is provided by the people who manage to sleep through the "Blitz."

Actually, inability to get to sleep is not a common complaint. Far more widespread is the inability to sleep *deeply* and *reposefully*. Lady Oxford and Asquith, writing of the time when she lived at 10 Downing Street, has described the agony of mind this can produce:

"There was a period during which I suffered from 'nerves' and nervous exhaustion. No one ever suffered more than I did! I was so strung-up that I used to gnaw my knuckles till they bled."

In despair, she called in her doctor. "He demonstrated to me," she writes, "that what I needed was to improve the *quality* of my sleep." Having learnt to do that, Lady Oxford was able to write 14 or 16 hours a day.

IT is the good *quality* of their sleep that explains the endurance of most great men and women. Statesmen and generals in particular have been famously good sleepers. (Pitt, Lloyd George, Cæsar, Napoleon, Wellington, to name only a few.) This is, of course, not a *result* of their burdensome occupations but a reflection of the fact that only first-rate sleepers "get to the top." Indeed it may be stated as an aphorism that first-grade people are almost invariably 1st Group Sleepers.

The people in the 2nd Sleep Group are those who sleep shallowly, fail to get proper recuperation during sleep and, as a result, suffer as Lady Oxford did from inexplicable "nerves" and tiredness. The 3rd Group, not a large one, comprises the people who suffer (usually only temporarily) from actual insomnia.

People in the 2nd and 3rd Sleep Groups almost invariably find that they become 1st Group sleepers if they form a habit of taking Horlicks last thing at night. It's not an expensive pleasure. *Prices are as before the war*, from two shillings. After a delicious cup of hot Horlicks, they find that they go to sleep easily and sleep *well*.

It is very easy to know when you have slept well. You have a sense of being healed and renewed in body and mind. If you have been a stranger of late to that pleasant feeling, start taking Horlicks for a while and observe the effect. You will not find a better recipe for sleep.

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly
London, March 22, 1941

THE BRITISH GOVERNOR OF CYRENAICA TAKES OVER HIS NEW ADMINISTRATIVE DUTIES: LIEUT.-GENERAL SIR HENRY MAITLAND WILSON WITH THE NATIVE HEADMEN OF A VILLAGE IN LIBYA

Of all the theatres of war, Africa has swiftly repaid Britain for her foresight and drive: with the conquest of Cyrenaica by Wavell's Army of the Nile, the whole of Mussolini's most fruitful colony has fallen under British control. To-day General Wilson (formerly C.-in-C. in Egypt) is administering the territory as Military Governor; and elsewhere in this issue we discuss certain of the problems which confront him in connection with the 10,000 Italian settlers who now come under his rule. The Governor has lost very little time in entering on his new duties: here he is seen after a discussion with the native headmen of a village in the westernmost area of Cyrenaica, where he has been carrying out a tour of inspection. With the General is the Political Officer of Western Cyrenaica (in R.A.F. uniform); whilst behind the barbed-wire fencing are Italian troops captured during the recent military operations and now awaiting transportation to another scene

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A WAR NEWSLETTER—No. 81

1, NEW OXFORD STREET, W.C.1

New War, New Weapons.

—The three "fighting services" (as we once described what are now *primi inter pares*) have now made their customary spring introductions of estimates, and persuaded the taxpayer that the signing of three blank cheques on the Bank of the Future is a justified precaution against the dangers of to-day and to-morrow. All three Ministers spoke clearly, as frankly as circumstances justified, and confidently. Mr. Alexander spoke at a period of reduced weekly sinkings, but, when he painted his picture of what faced the Navy in the months or weeks ahead, he warned us fairly to expect . . . what the statisticians handed us last week, and not to be unduly cast down by such lamentable figures. The Nazis, we believe, did not achieve those results without loss to themselves. The War of Britain is actively joined again, and we are so much nearer the end of the war. Captain Margesson spoke his first major speech as War Minister clearly, confidently and well. An unfortunate publication of the 5th Report of the Committee on Expenditure, disclosing criminal waste of public funds by the War Office, on militia camps, somewhat emasculated the effect of those passages of his speech which told us of great strides in War Office economy. Sir Archibald Sinclair was particularly heartening; indeed, his recent speeches have all been encouraging and confident. He told us as much as the enemy ought to know of the performance and potentiality of new types of aircraft, and of the increases in our strengths of machines and personnel. We have, in the period under his review, taken a heavy toll of Axis first-line machines: something like 5000 machines, representing perhaps half of both Germany's and Italy's original first-line strength, at a cost of less than one-third of our own. His speech also coincided with the resumption of the air *blitz*.

Giving and Receiving.—

The Good Books tell us that it is more blessed to give than to receive. This is certainly true in war. It is comforting to think that, with the revival of the *blitz*, we are giving as good as we get. I do believe it. Berlin had been too long immune. I admit that a few weeks ago I thought that a convention, not to be put into words, might conceivably grow up between the combatants (as a result of forbearance further to bomb the capitals) that London and Berlin should be spared further attentions from the air, on the ground that the imbecile battering-match was more inconvenient than effective from a military point of view. But Hitler, at least "wouldn't have it," and I doubt not now that we wouldn't have it either. It would have been embarrassing to the Government, wounding to London pride, and an obvious cause of internal dissension, if the capital had been spared, while the great provincial cities continued to bear the brunt of suffering. The bombs rain down in turn, and we all remain in it—which is good, if anything evil can so be called. An insane battering-match is still a just description by an impartial observer on Olympus. Meanwhile, by small signs and little, significant statistics, we learn that there is some slight reason to believe that careful plans to make night-bombing more expensive to the enemy are bearing fruit. Twenty night-bombers were bagged by our defences during two successive nights. The figures cannot yet give pause, but they may give cause for thought. We are far better prepared and protected now.

The Initiative.

—In Africa and over Greece a very significant fact has emerged. There, it seems, our Air Forces have achieved something like complete air dominance. It is the rarest thing to read of the loss of a single British machine during the day or night offensive operations against the Italians. Indeed, the statistics are incredibly heartening. The sea-*blitz* is also launched, and we have had again to read of grievous weekly sinkings. We may not hear yet at what cost to their submarines and bombers the Nazis achieved those results; but we are aware that the costs were heavy, and we can obtain a juster sense of proportion if we set off the announced (or *obiter dicta*) enemy losses in tonnage over the same periods. These of late have been very high. The Axis merchant-tonnage losses may not be so vital to them as ours to us—I do not know—but I could wish that, for proportion's sake, the authorities could give us, as far as circumstances allow, a weekly total of enemy tonnage, naval and merchant marine, known to have been destroyed. That would correct pessimistic opinions, even if it would give so much innocent pleasure to, say, Russia. On land, at the moment, there is no question at all that the "giving" is 90 per cent. on our side. In Albania and all over North Africa, the Augean stables of the Italian Empire are being swiftly mopped up, and for every 100 Italians in the bag, less than a single Briton is accounted for. The bitter and perhaps the final issue is joined.

Face of the Country.—

The face of the country is changing now. Every sunny day brings a revelation and a revolution. Light and colour are coming back, and our visual range widens every week. The change in the countryside is seasonal, but in another sense more permanent. Spring and war are both at work to ring changes. What was brown in winter is green again. But what was green is brown. So much pasture and parkland has been ploughed up that we hardly recognise the familiar view over the Weald from our favourite down or our bedroom window. So many woods and plantations have fallen to the axe that ancient landmarks are gone, and we must accustom ourselves to new pointers and guides. Miles and miles of fir plantation are now bare, brown common land; old country houses show up stark which once were hidden—all save their tallest chimneys—behind noble avenues and park clumps. How much of the England that lay nearest to us and most familiar to our eyes will return next November to its accustomed winter appearance? Broadly, we shall not look upon its like again. The thought provokes a longer look into the future. When this tyranny is overpassed, what part will return of the country scenes and country life most familiar to us? We can only guess. Will the land fall out of cultivation again, and the trek be to the towns? Will the families who lived in the larger and lesser country houses come back to their own? Will the hands of the jerry builders desecrate the country again with their brick ribbons sprawling along new-cut trunk roads? We shall not live to see the new woods. I do not think we shall live to see single-family life lived in a majority of the old manors that survive. We may live to see something new in country life which we shall acknowledge to be fit, sane, constructive and attractive. Perhaps a better use may be made of the country for and by a larger proportion of the nation. Perhaps the stately and the lesser homes will be in the hands of central and local government authorities as summer and holiday homes, and training-centres for the children of crowded cities; perhaps the Government will keep faith with farmers and not instantly lose interest in agriculture when present dangers are past. Perhaps an authority to control and plan rural developments will survive the war. Perhaps — who knows? — we may, as a race, emerge from our sufferings less selfish, less individualistic, less purblind, less vulgar, less lax, less frivolous (and maintain those gains).

IMPORTANT NOTICE TO ALL OUR READERS

As most of our readers must by this time be fully aware, the Publishing Houses of Britain are passing through serious times. Coupled with a curtailment of paper supplies owing to shipping difficulties, all production costs have also risen to a high level.

After months of resistance—despite the steeply rising costs of production—the Proprietors of "The Sphere" have reluctantly been compelled to follow the example of others and raise the price of this journal from 1s., as hitherto, to 1s. 3d. per copy.

Owing also to the urgency of the paper-supply problem, waste must be entirely eliminated. If, therefore, you have been in the habit of buying your copy of "The Sphere" casually, *and have not placed a definite order for it*, you will probably be unable to secure a copy in the future.

It is to your own interest to place a definite order at once.

We regret the advance in price; we have resisted it as long as was possible; but we have been forced to this step by events beyond our control.

Starting with the issue of April 5, the price of "The Sphere" will henceforth be 1s. 3d. per copy.

THE EDITOR

Racing.

—It is not surprising that the Government's policy of sanctioning the continuance of racing (with restrictions—and severe ones—of course) should evoke criticism and even bitterness from a wider circle than the anti-sporting and the anti-gaming. It must strike as incongruous a wider public than the class of farmer and poultry-keeper that, whereas the stocks of pigs and poultry must be now reduced (after so recent encouragement to increase them), because of the inability to import foodstuffs, a racehorse may still draw a daily ration of 16 lb. oats, while a farm horse must make do on less than half that ration. Race meetings, other critics will urge, encourage travel, reduce saving, keep fit men in non-essential work and increase non-essential calls on transport. Against these criticisms, there are the arguments that some form of popular relaxation must remain even in a death struggle, and that, taking the long view, horse-racing is vital to the welfare of a most useful animal. Many of these arguments were used in the last war, not only against the continuance of racing in England, but against the continuance of a Cavalry Corps in France. To-day, it must be admitted, the *pros* look undeniably meagre set beside the massive array of *cons*. It is as if some inherent weakness in public men for ever prevents them from totally abandoning compromise, for ever compels them to keep a foot in two worlds, to weaken every supreme effort with a half-measure, for ever to cast one longing, lingering look back. Yet, indeed, what is government (even good government) in a democracy but compromise?

Cave-men.

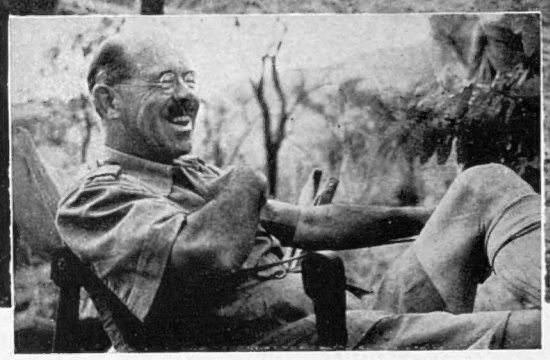
—Some of us may sleep quieter in our beds this spring and summer when we think of the new Gibraltar—a modern city built realistically to stand the chances of our day—tunnelled out of hard rock by Canadian hard-rock miners scores of feet below the surface. A city of arcades, shops, hospitals, rest centres, arsenals, barracks, offices, a city secure from air and land bombardment, with stores of water, food and munitions to meet the worst that may come. The idea attracts us because most of us now renew our interest in the existence of cave-men, and remember with envy the deep shelters made by Nature or by Nature-*cum*-man which we have known. Our "ideal house"—if we could put the clock back—would have been on the model of a Petra Rock dwelling, with a roof of rock 200 ft. thick above our heads. The Ramsgate folk have felt the lure of cave-dwelling, and have, some of them, moved in permanently to their natural defences, arguing, fairly enough, that in winter at least, in Hell's Corner, it is too late to wait for a siren before leaving your bed and house for the cliff hollows. What is happening at Cheddar Gorge? Those famous caves are, I believe, the property of Lord Weymouth, and I wonder if he is now a great (under-) ground landlord? One could live quite a tolerable and very peaceful existence beside the Axe in Wookey Hole, and perhaps some of the Canons of Wells are doing so. The Compton Caves under the Hog's Back are dark, but I dare say have been modernised. There is nothing new in living underground. The idea did not die with the cave-men. Hundreds of Frenchmen in the wars of France during the past 600 years lived and married and tended their cattle in the capacious *souterrains* at Naours, which were in use even in the days of the Roman Empire. Night-bombing, at the best, is an intolerable nuisance, at the worst an affliction. Every natural cave should be inhabited to-day, and rationalised, more or less permanently, and the cave-dwelling architect should be the man of the hour.

Old London Remade.—

It was a charming picture which the President R.I.B.A. painted of the new face of old London to emerge after this present nightmare—a dream picture, of course. We do not know yet what amount of clearance the Nazis may do for us in the way of preliminary work on the scheme, nor what money may be available to complete the replanning. Time was when land round St. Paul's sold at many pounds a square foot. Time was when a green acre in the City would have been as precious as a Rajah's principality. But such a picture is good as an act of faith, as a token of vision, and as an "escape" recreation. Who would not thrill to imagine Old St. Paul's as the centre in a cathedral close of smooth lawns and cloistered ways, standing forth, as once stood very-old St. Paul's? Who would not rejoice to walk down a new Old-Cheapside, part of a great tree-lined, broad avenue of shops and offices stretching from Marble Arch to St. Paul's? Who would not rejoice to see Guildhall, looking much the same, but gloriously displayed, in the centre of a noble and wide piazza; and terraced gardens dropping down from St. Paul's to the silver Thames (bubbling with salmon), winding between fair embankment-gardens and green banks, divorced from the scars and stains of industry, to the sea? Who, indeed, would not delight in the views of the London idealised by Canaletto and Scott, brought back to fit our new age, with residential Square gardens, smiling a welcome to all comers, barred against none, showing the houses across the Square through a vista of flowering cherries set in emerald lawns? Such things were seen and known in the old city of Whitehall three centuries ago, and in the Strand and in the City. Perhaps our children's children may see some of them again. Sweet Thames, run softly! Much of your waters must run under your bridges before the dream comes true. But pleasant dreams are good—"if you can dream and not make dreams your master."

THE OLD STAGER

BRITISH OFFICERS IN THE HEART OF ABYSSINIA: THESE ARE THE MEN WHO HAVE STARTED THE REVOLT AGAINST THE ITALIANS AND ORGANISED THE "PATRIOT" TROOPS OF THE EMPEROR

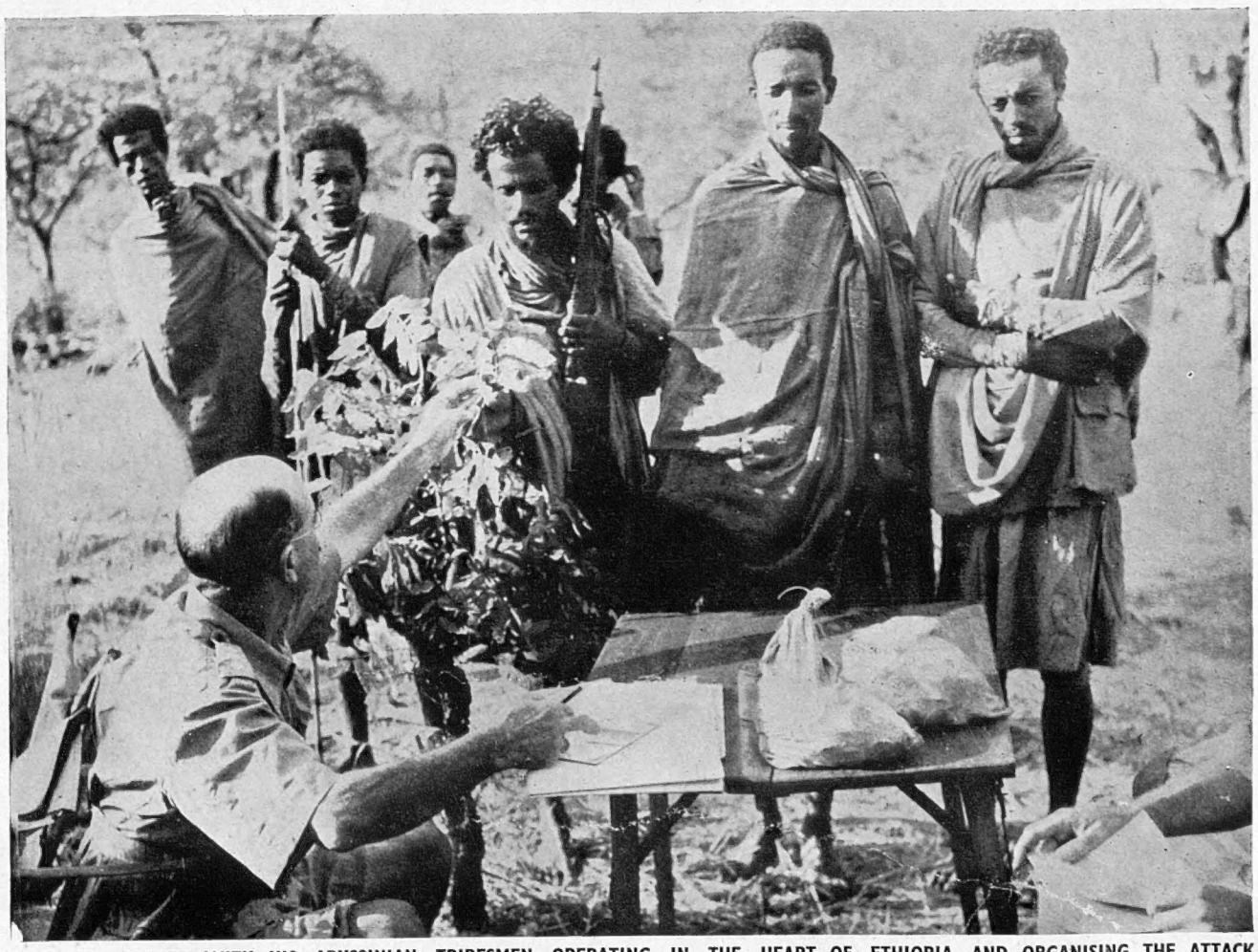


AN OFFICER OF THE ETHIOPIAN EXPEDITION TAKES HIS EASE IN THE JUNGLE

From the HEART of ABYSSINIA

At the outbreak of serious operations against the Italians in Abyssinia, the Ethiopian natives were badly in need of efficient leadership. This has now been supplied by a band of British officers, acquainted with the nature of the country and with jungle methods of warfare. Under the command of these determined men, the natives have been armed, organised and drilled; they are now advancing steadily into the heart of the country, and causing great "alarm and despondency" amongst the Italian garrisons lying in the path of their forward movement.

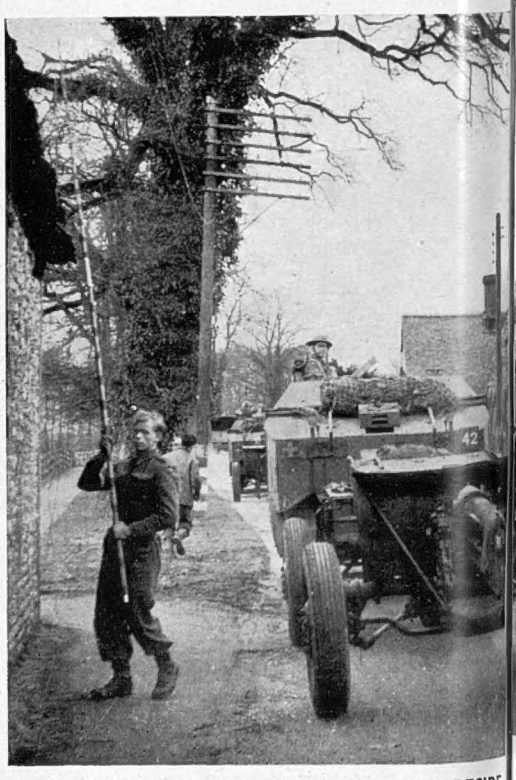
These pictures have just reached England from this remote but important zone of war and show the fine types of officers now engaged in this difficult and hazardous work.



A BRITISH OFFICER WITH HIS ABYSSINIAN TRIBESMEN OPERATING IN THE HEART OF ETHIOPIA AND ORGANISING THE ATTACK ON THE ITALIAN GARRISONS. GREAT SUCCESSES HAVE ALREADY BEEN ACHIEVED BY THESE MEANS, AND MANY OF THE ITALIANS ARE TERROR-STRICKEN BY THE ADVANCES MADE BY THE NATIVES

AMERICA SETS OUT TO HELP BRI AIN

With the passage of President Roosevelt's ease-Britain Movement has disappeared. From now on, a and more factories are brought into produc ion—considerable effort. This picture was taken at Santa Aircraft Company : the aircraft are Boston bo bers, for the Royal Air Force : numbers of thi type



THE BRITISH ARMY IS SPENDING ITS DAYS IN REHEARSING MEASURES FOR THE REPELLING OF AN INVASION, SHOULD THE GERMANS FINALLY DECIDE

These two pictures were taken recently during Army Exercises, when British troops were engaged on rounding up "enemy parachute troops" who were supposed to have landed on the Downs. The one on the left shows a big tank stopped by the roadside during the Exercises to discuss the next phase of the operation ; and the one on the right shows guns of a medium battery Signals placing a telephone cable into position. The officers to be a signal defeat of the invaders and

IN EARNEST: A SCENE AT SANTA MONICA

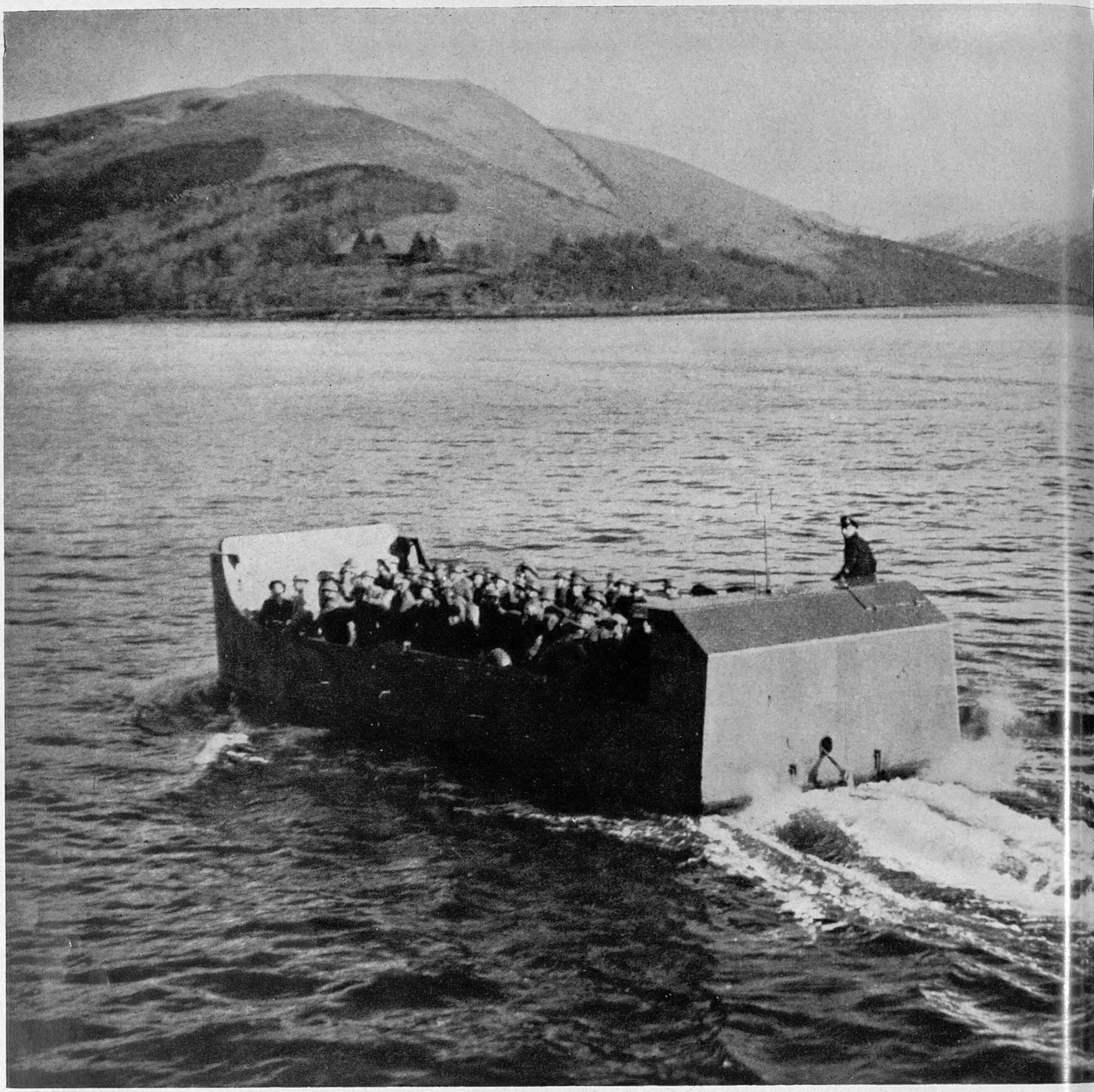
and-L nd Bill, all effective opposition to the Aid for flow f munitions of all kinds—ever growing as more will s ream across the Atlantic to augment our own Moni a, in California, at the airfield of the Douglas These are all ready for final assembly, and all are are a eady over here and doing good work

ON SUCH A RASH UNDERTAKING

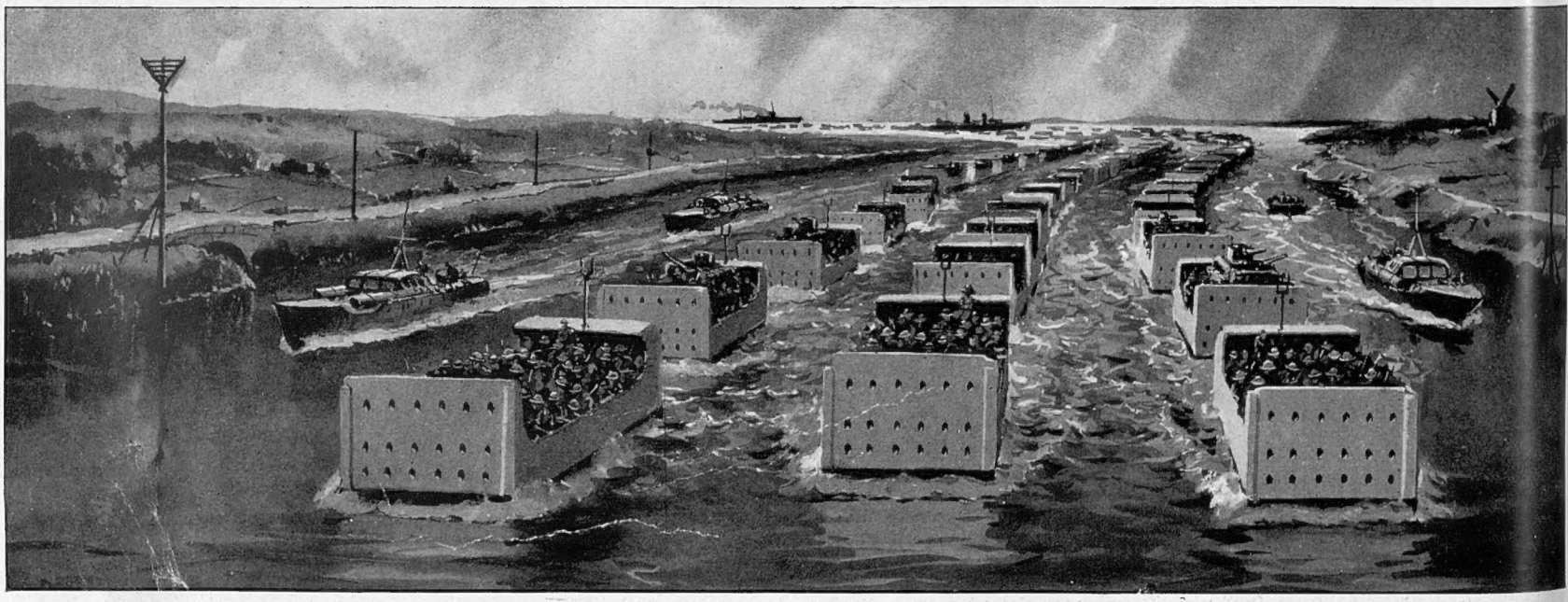
on the move, with men of the Royal Corps of result of the Exercises was declared by high Army a triumph for the defenders!

A DEFENCE POST OF THE EASTERN COMMAND MANNED DURING A MOCK INVASION

A party of London war correspondents have just been given an opportunity of witnessing some of our defence arrangements when they toured the Eastern Command and saw various phases in the training of troops. Here is one of the things they saw—a well-built post overlooking the sea, fully manned to repel invasion



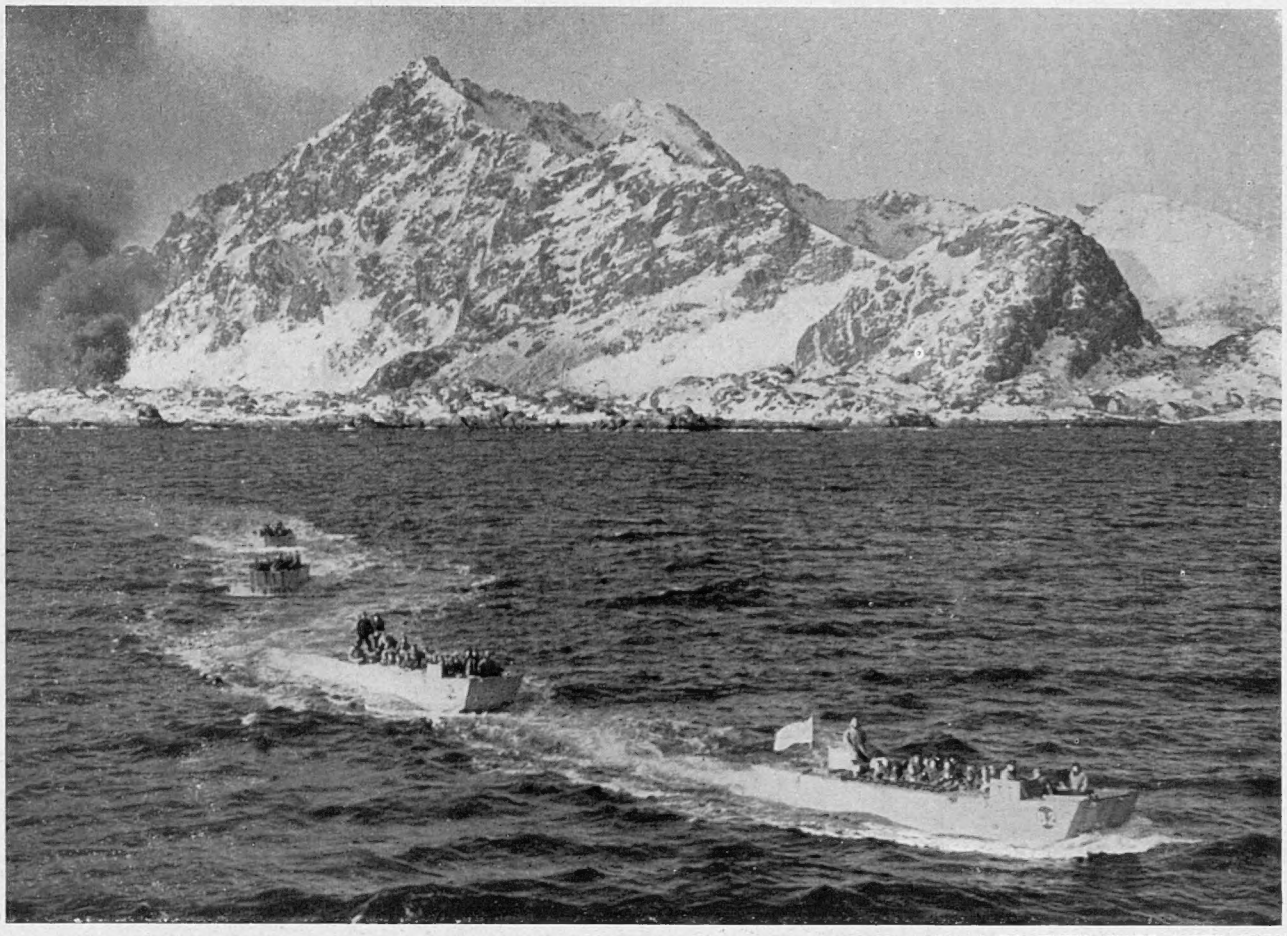
HOW BRITISH TROOPS WENT ASHORE AT SVOLVAER AND STAMSUND, IN THE LOFOTENS, in specially constructed "landing craft," the nature of which is here disclosed for the first time. These roomy and well-protected craft are capable of accommodating a big number of men fully armed



AN IMPRESSION OF HOW THE SAME TYPE OF CRAFT AS THOSE USED IN THE LOFOTENS MIGHT BE EMPLOYED IN A BRITISH INVASION OF WESTERN GERMANY AND THE CANAL REGIONS OF THE LOW COUNTRIES IF, AND WHEN, WE TAKE THE OFFENSIVE ON THE CONTINENT—*Drawing by J. Patton*

THESE ARE OUR OWN INVASION BARGES

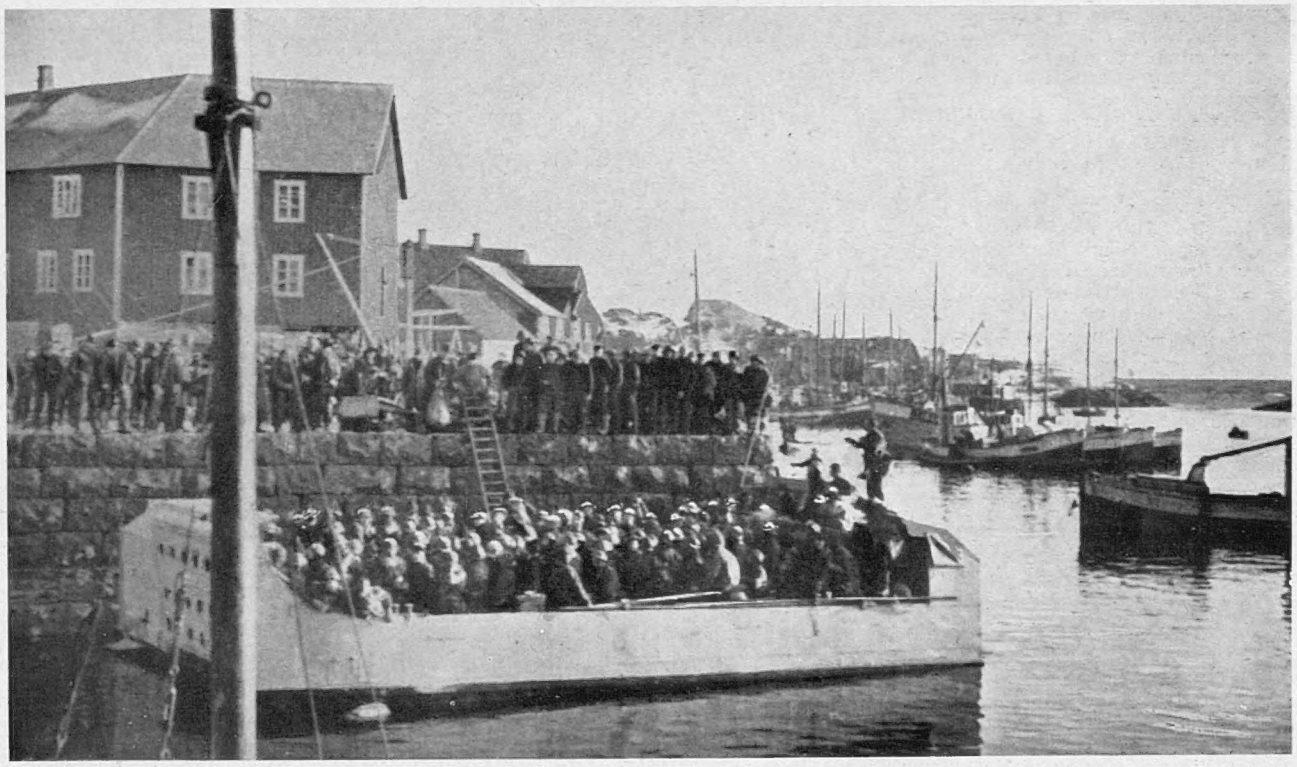
Which Carried British Troops Ashore During the Raid on the Lofoten Islands on March 4. This "Invasion" of Norwegian Territory Caused the Utmost Alarm Amongst the German Occupants of that Country!



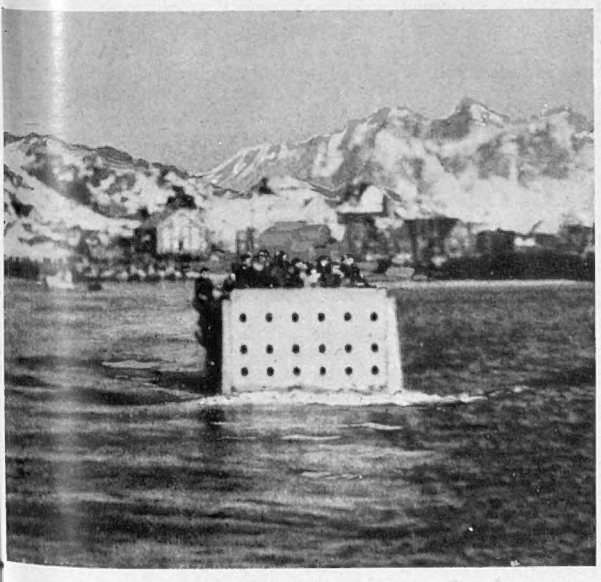
LEAVING THE SNOW-BOUND HILLS OF THE LOFOTENS BEHIND, THE BRITISH TROOPS RETURN TO THEIR SHIPS AFTER THEIR TEMPORARY—BUT VERY REAL AND VERY DESTRUCTIVE—"INVASION" OF A GERMAN STRONGHOLD AND SUPPLY BASE IN NORWAY

for the first time. It will be observed that

Below—A FRONTAL VIEW OF A BRITISH "INVASION" CRAFT: Presenting a comparatively small area (for the number of men carried), and with rows of embrasures at the bow



HERE IS A BROADSIDE VIEW OF ONE OF THE CRAFT USED AT THE LOFOTENS: IT HAS BEEN LOADED WITH RETURNING BRITISH TROOPS AND WITH PATRIOTS WHO DECIDED TO COME TO BRITAIN



We have been hearing a great deal during the past winter concerning Germany's plans for an Invasion of Britain: experts have assured us that such an operation will undoubtedly be undertaken by the enemy, soon or late. Meanwhile, however—without any talk or previous hint—we *have* actually done what the Germans have only threatened: carried out an invasion of German-occupied Norway.

The Raid on the Lofotens was a brilliant success: the nature of the reprisals inflicted on the Norwegians testifies to the severe shaking the Germans sustained. Now they will not be sure where the next blow will fall, and will have to stand to arms along a very, very long front from North Cape to the Bay of Biscay

What must have come as the biggest surprise was the evidence that Britain, too, has her "Invasion barges": and these are no flimsy, slipshod affairs, but well-thought-out and soundly-constructed craft! The pictures we reproduce here are from official photographs and show many of the interesting details of these barges

AND THIS IS AN "ASSAULT BOAT," USED FOR RIVER CROSSINGS, BY MEN OF THE EASTERN COMMAND

OUR FIGHTING ALLIES—THE POLES

Their Wonderful Record of Achievement Throughout Europe—On Land, At Sea and In the Air

Described by FERDINAND TUOHY

IF an Allied medal were struck to-morrow with battle-clasps affixed to its ribbon, the Poles would show the most clasps of all foreigners who have participated in this war. It is arguable if the British could show more.

Warsaw would be the first clasp, while signifying fighting all over Poland for over three weeks. Next, the Highland Brigade went to Norway after having been held ready to go to Finland. It was at the capture of *Narvik*. About the same time a Polish Brigade joined the French Syrian Army after trekking across the Balkans and Near East. As soon as General Mittelhauser threw in his hand, this Brigade made for the British lines in Palestine, and it lately won honour in the *Western Desert*.

Meanwhile, the main Polish forces, comprising the Rifle Infantry Division, the Armoured Cavalry Brigade and the First Grenadiers Division, were caught in or around the Maginot Line when news of the impending French capitulation fell like a thunderbolt on French and Polish troops alike. The clasps here would no doubt be *Nancy*, *Vesoul* and *Charquemont*, where the Poles fought like furies, as Germans and French were later to testify, the latter through General Weygand himself, who distributed regimental honours and thanked the Polish commanders at a poignant farewell meeting.

The next clasp would be *London*. The part played in last year's Battle of Britain by No. 303 Fighter Squadron of the R.A.F., otherwise the Kosciuszko Squadron, led the best judges here to rate the Poles as among the finest flyers extant. One of Poland's Hurricanes bears the number 126, being the total of "certains" shot down in August and September last.

The final clasp to date would be *Atlantic*, commemorating the role of Polish destroyers, submarines, merchant vessels and motor-boats, in combating Hitler's sea offensive. Nor is it any secret that yet another clasp may be on the way—*Scotland*—if the Nazis every try landing there.

It was therefore wholly fitting that their Majesties should have paid a visit to the Polish Army Corps on the threshold of this year's Battle of Britain, whatever character it is destined to take. They were honouring an ally whose particular contribution to the common defence of freedom has earned the special salute of the British Commonwealth, whose peoples recognise full well the immensely tragic impetus that lies behind the boundless Polish enthusiasm, zeal and audacity—the "dare and damn all!"—exemplified in the air, on land and on the sea. These men have lost everything. Daily they ponder the terrible ordeal through which their families are passing under the heel of tyrants who hate the Poles most of all. None have suffered as the Poles in this war. None strain more to fight all out than the Poles under arms in this country and the Middle East.

These men are in reality the ultimate expression of Polish patriotism and the never-say-dies of the struggle. They mostly came over here from Brittany in June last. They wanted to fight *anywhere* in France but couldn't. They had just come back from Norway and began putting part of Brittany in a state of defence, it having at one time been a French idea to hold on to Brittany at all costs. But circumstances were too strong for the small Polish force, which had to get across to England as best it could.

When the Polish forces were re-formed in this country, aided by many arrivals from America and other parts of the world, and by a steady trickle back from France, Goebbels's radio sneered at "Sikorski's tourists." True enough, the war has taken the Poles to many latitudes, but it may take them yet to German parallels, even as Polish pilots are already bombing the Reich.

The spirit of the fighting Poles can never be better illustrated than by the Kosciuszko Squadron's bound to fame, reckless but splendid, in the Battle of Britain. Personnel had assembled from two quarters. A certain number made their way to England after the overrunning of Poland. Others—the majority—got through the Balkans to France, where they fought in the last battle there. As many as could flew over here in Dunkirk days, and thereafter the Squadron got down to new training in a recast state. Its then ace was a Czech who had flown to Poland when *his* country was overrun, and, after shooting down twelve Nazis in the Battle of France, was to account for a further seventeen from these shores before dying in a crash landing last autumn. The new ace cannot be mentioned by name: none of these men ever gain that recognition lest further ordeal be visited on their relatives in Poland.

It was found necessary to appoint a British as well as a Polish Squadron Leader—the former mainly to handle relations with other R.A.F. squadrons, though he may also lead the unit in action—and it speaks well for the good spirit of the Poles that this dual control has never led to the slightest trouble. The Poles, of course, have their own regimental colours, ranks and badges, but in their Air Force blue and battle-dress are sometimes difficult to tell apart from British troops, whose pay and allowances are the same as theirs.

Instruction has been carried out in a mixture of English, French, Polish and dumb-show. Fortunately, the Poles are quick-minded, but zeal lends a hand. A British C.O., asked the reason for the Poles' outstanding air successes, replied, "Firstly, I should say the boundless dash and enthusiasm of the pilots. Secondly, success springs from the bitterness these men feel from realisation of the fate of their country under German rule. The enthusiasm of the pilots is shared by the ground staff, who perform prodigies in repairing, refuelling and rearming planes at top speed.

"There is another reason for the Polish pilots' success," added this informant. "A more technical matter. These fellows have shown extraordinarily good eyesight. Time and again our own pilots have had their attention first drawn to a distant Jerry enemy by Polish pilot flyers. The Poles say their sight is exceptional because their radio sets were so bad that they had to bank much more on the eye than on the ear. Whatever the cause, it is a mighty useful asset."

But to come to that great day of aerial revelation.

On August 20 last the King was visiting the Squadron Station when news came of mass enemy arrival over the South Coast. The Poles had had only a few days of battle experience, but away the Squadron went, taking off inside five minutes, and during the ensuing hour the King followed in the operations room an action with 200 Messerschmitts escorting forty bombers. Fighting with two British squadrons, the Poles, their British Squadron Leader at their head, accounted for ten "certains" and two "probables."

Since then the only difficulty has been to restrain the Poles from unnecessary dare-devilry and to see that crashes are not lightly courted. For they want to be having a go at the Nazis night and day. They love nothing better than bombing Berlin, and when they have taken leaflets to Poland they've wanted to carry bombs, too, just to drop en route. After they have bombed invasion ports by day it is hard to prevent them coming down to fifty feet to machine-gun Nazi airfields—as latterly at Bercq. I am even told that, when some pilots fly from station to station in this country, care is taken to ration their petrol lest they be tempted to branch off and have a "go" at the Nazis before resuming their domestic flight in these islands!

Of all the Allied forces which have come to Britain as crusaders against German domination none have settled down more happily than Sikorski's Poles in their camps somewhere in Scotland. Now splendidly equipped, the Polish Corps spoils for the next round with Hitler. A succession of distinguished visitors, including Mr. Churchill ("your audacious bravery") and Mr. Eden, have paid their tribute to what they found north of the Tweed.

The Poles are fine physical types, and they go through their training with relish. At one camp the men have used their leisure time in marking out a huge map of Poland beneath the pines, with each of the large cities depicted by a little model, beautifully made, of some well-known feature. But Warsaw is shown by a little heap of blackened stones. The Polish Corps spends some of its leisure in cafés and cabarets of its own contriving, and Polish popularity with the opposite sex is unmistakable.

Nor is it so surprising that the Poles have got along well with the Scottish. The Old Pretender had a Polish wife (Maria Sobieski), but a more yielding tie lay in the big Scottish emigration to Poland in the seventeenth century. General Pat Gordon, in his *History of Scotland*, says he found thousands settled mainly in Danzig, Posnan and Warsaw.

Now Scotland has a chance to return that olden hospitality, and the Scots of Blankshire and neighbouring towns are doing so. A resident who has taken part in Lady Warrender's Comforts campaign said: "There are curious similarities of tastes, traditions and resolution between us and our Polish friends with whom friendship is both easy and real. We find them courteous, honest and appreciative, and we acquire from them added confidence. What pleases us greatly is their splendid singing. They have first-rate voices and have learnt Scottish songs. Their own marching songs are a joy."

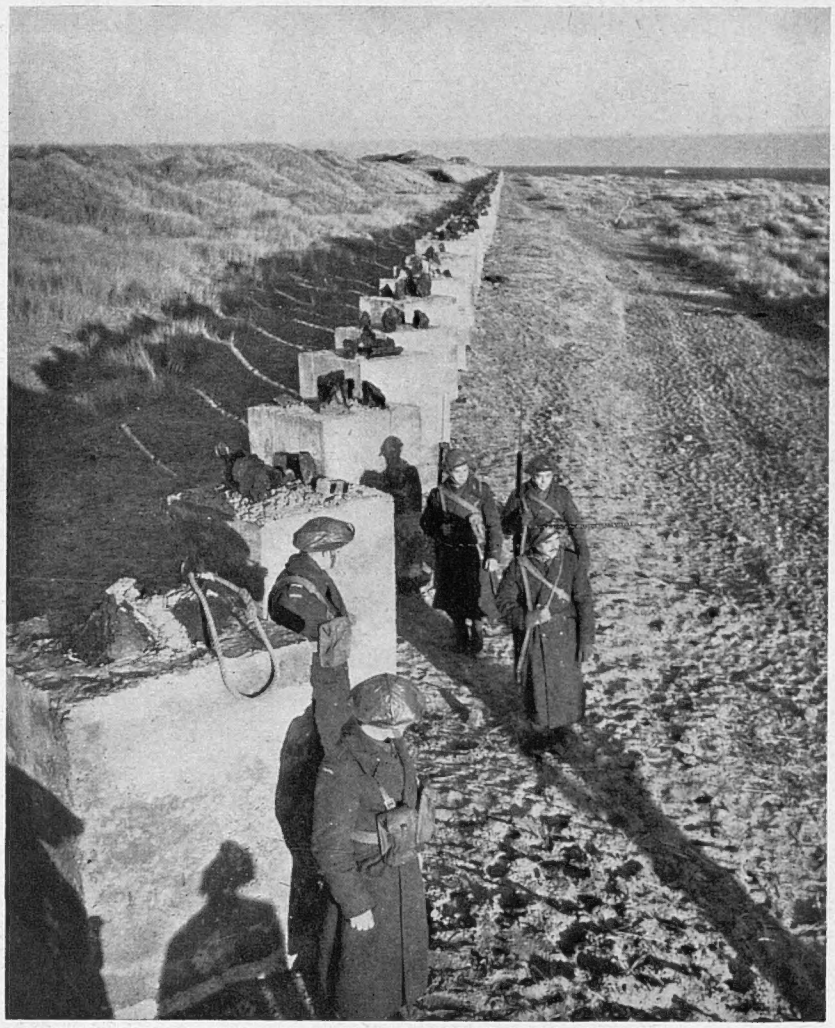
And their bagpipes! Yes, in order to fit in more with their environment the Poles adopted this alarming instrument, though they have since been equipped with bands better suited to their own Slav music, now melancholy, now riotously gay, after the temperament of these "Irish of the East." By all accounts they have distinctly pepped up the Scottish countryside, what with their singing, cabarets, dances in barns, bands and their general high spirits.

They will take a new form of "Lassie English" back to Poland when that auspicious day eventually dawns.

The Polish Corps lately acquired its own daily newspaper, which now has a considerable circulation. In addition, all listen most attentively to the three Polish broadcasts given daily by the B.B.C. If they miss anything it is the hindrance to greater entry into Scottish family life, caused largely by linguistic difficulty. Some have benefited by a medical school specially opened in Scotland. Others are attending a Staff College lately inaugurated—and we might bear in mind that Foch, in writing, characterised Sikorski as one of the best strategists in Europe after the Commander of the Fifth Army had driven back the Bolsheviks from the gates of Warsaw—for it was Sikorski who had most to do with this victory so much disputed on the personal side. Weygand likewise testified in Sikorski's favour.

Up in Scotland, besides the Corps Commander, there is a general who led the armoured units in France. They carry a black stripe on their shoulder to symbolise the multitude of their ranks who died in the first fearful onslaught in Poland.

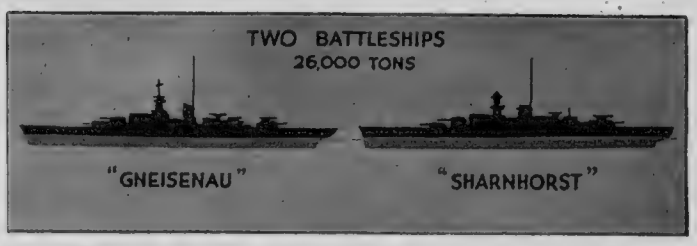
Foreign Minister Zaleski has said the Poles are "ready to go anywhere," and one fully believes it of the forces in these islands and in Africa, who have been well characterised as "the most valuable elements,' those who dragged themselves across Europe and employed every stratagem to keep in the front line against the torturers of their native land.



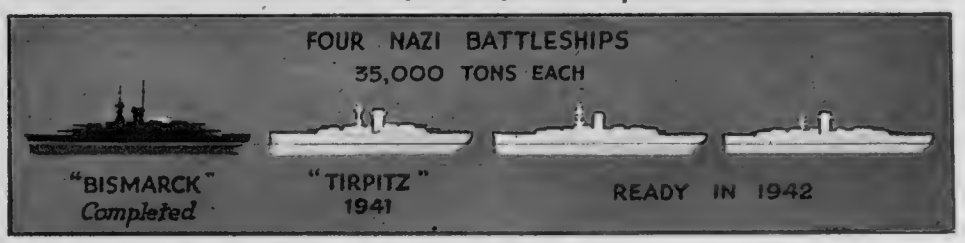
BRITISH SHORES DEFENDED BY POLES: A PICTURE FROM SCOTLAND: For some time past, Polish troops have been holding a section of the line in Scotland, ready to repel the invader if and when he decides to invade these islands. But the record of achievement of the Poles is far greater than this—in Poland itself, in France, and now in Britain, our Allies stand in the front line. Their heroism in the land fighting, on the sea, and—above all—in the air, is here chronicled by Mr. Tuohy in the accompanying article

THE GERMAN NAVY AS IT IS TO-DAY

What Remains in Being, and What She has Lost—Some Salient Aspects of the Depleted Fleet

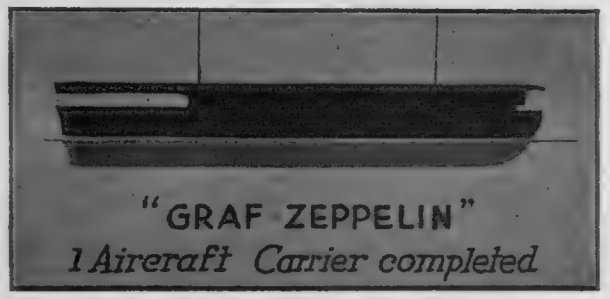


TWO VESSELS OF FULL BATTLESHIP RANK: Both the *Gneisenau* and the *Sharnhorst* are of 26,000 tons and rank as fully-equipped battleships. They are armed with 11-in. guns. Both were damaged in the early months of the war, but are now probably repaired and in commission



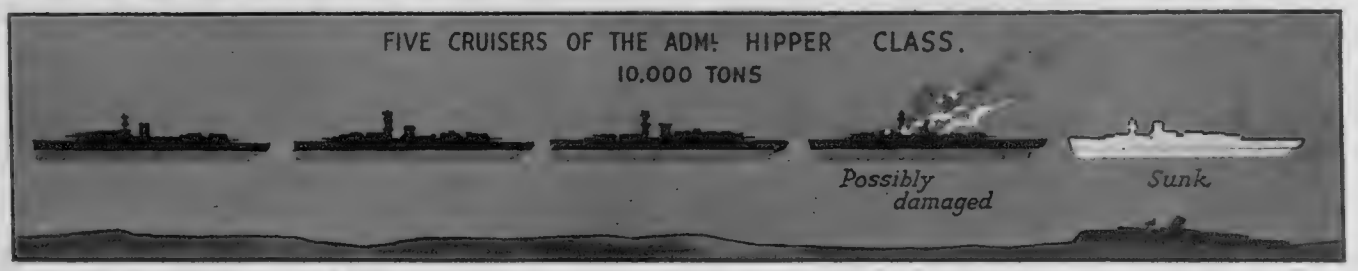
NEW BATTLESHIPS FOR THE GERMAN NAVY: At the outbreak of war the Germans had four battleships under construction. The *Bismarck* appears to have been completed, but the remaining three are apparently still not ready for commission. It is thought that the *Tirpitz* might be made ready for service this year, but the remaining two are not considered likely to be in service before 1942

ONCE THERE WERE THREE, BUT NOW THERE ARE ONLY TWO, POCKET-BATTLESHIPS: With the inglorious end of the *Graf Spee*, the number of German "pocket-battleships," or (as some experts prefer to regard them) overloaded armoured cruisers, was reduced to two. The *Admiral Scheer* and the *Lützow* are afloat somewhere, but it is doubtful if the Germans would risk them in an action against our own vessels



ONE GERMAN AIRCRAFT-CARRIER COMPLETED: Germany has been slow to recognise the possibilities of the aircraft-carrier. To-day she has one afloat, the *Graf Zeppelin*. Another, the *Deutschland*, was launched last year but is not yet ready for sea

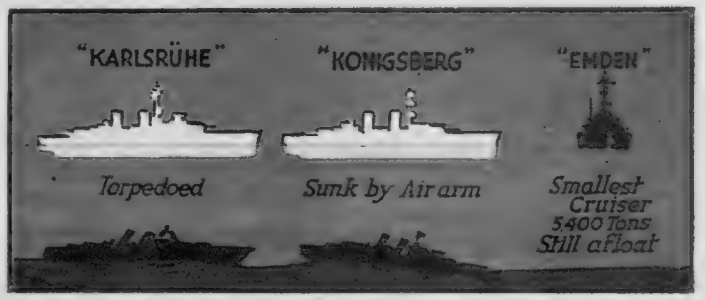
The German Fleet is to-day in a very different condition from that of the German Fleet in the last war. Germany has suffered such losses that her original small strength in major vessels has been seriously impaired. It appears evident that she is putting forth all her naval effort into submarines in the attempt to break down our convoy system. It has yet to be seen how far the morale of the new crews has been maintained during a long period of stagnation in harbour



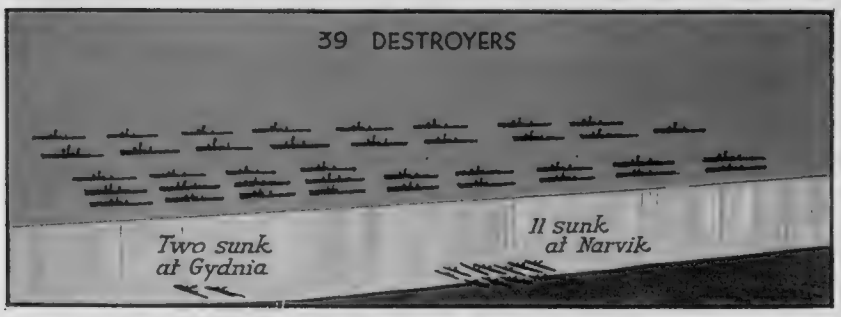
GERMANY'S SMALL NUMBER OF CRUISERS: Of the five vessels of the Hipper class shown here, one is at the bottom of the sea and another is possibly materially damaged as the result of a recent R.A.F. bombing attack. They are all of 10,000 tons displacement. The *Bluecher* met her fate at the hands of a patriotic Norwegian officer in command of a fort guarding the approaches to Oslo during the invasion of Norway

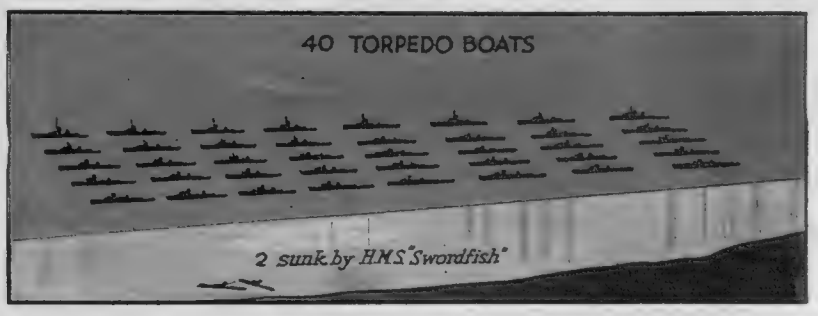
A COUPLE OF 6,000-TON CRUISERS: In addition to the possible three undamaged *Hipper* cruisers, there are two 6,000-ton vessels, the *Nürnberg* and the *Köln*, still afloat. The *Leipzig* probably lies at the bottom of the sea, as the result of recent gallant activity by the British submarine *Salmon*

The loss of the *Bluecher* and the *Karlsrühe* were both officially announced by the Germans. The former was lost "when silencing a battery of 11-in. guns." It was at Christiansand that the *Karlsrühe* "was heavily damaged by coastal batteries"



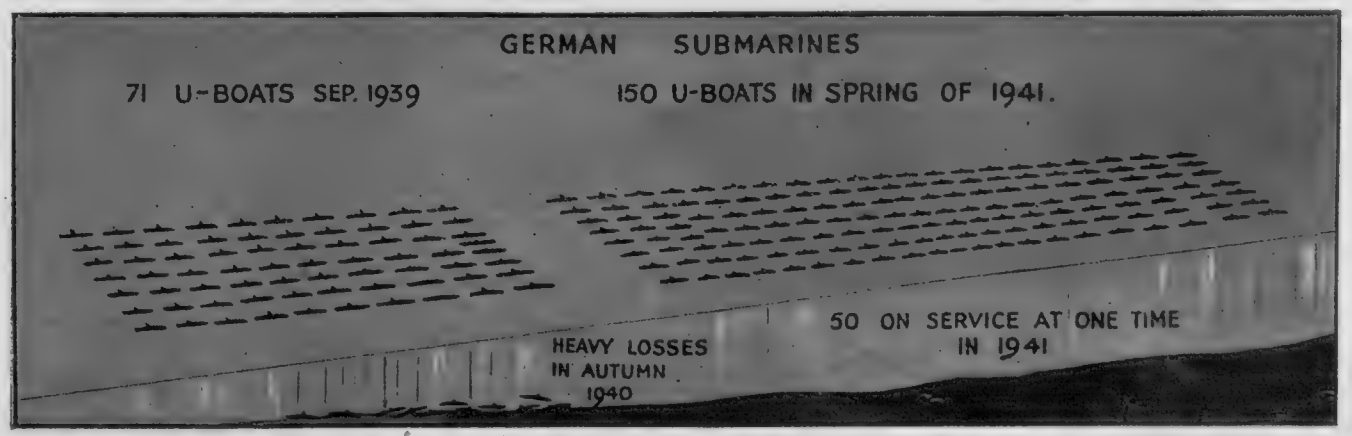
TWO FURTHER CRUISERS, BUT BOTH PROBABLY BELOW THE SURFACE: The German Navy has to cancel the names of the *Karlsrühe* and the *Konigsberg*. The *Karlsrühe* was torpedoed, and the *Konigsberg* was sunk by the Air Arm. The *Emden*, a small cruiser, is still afloat





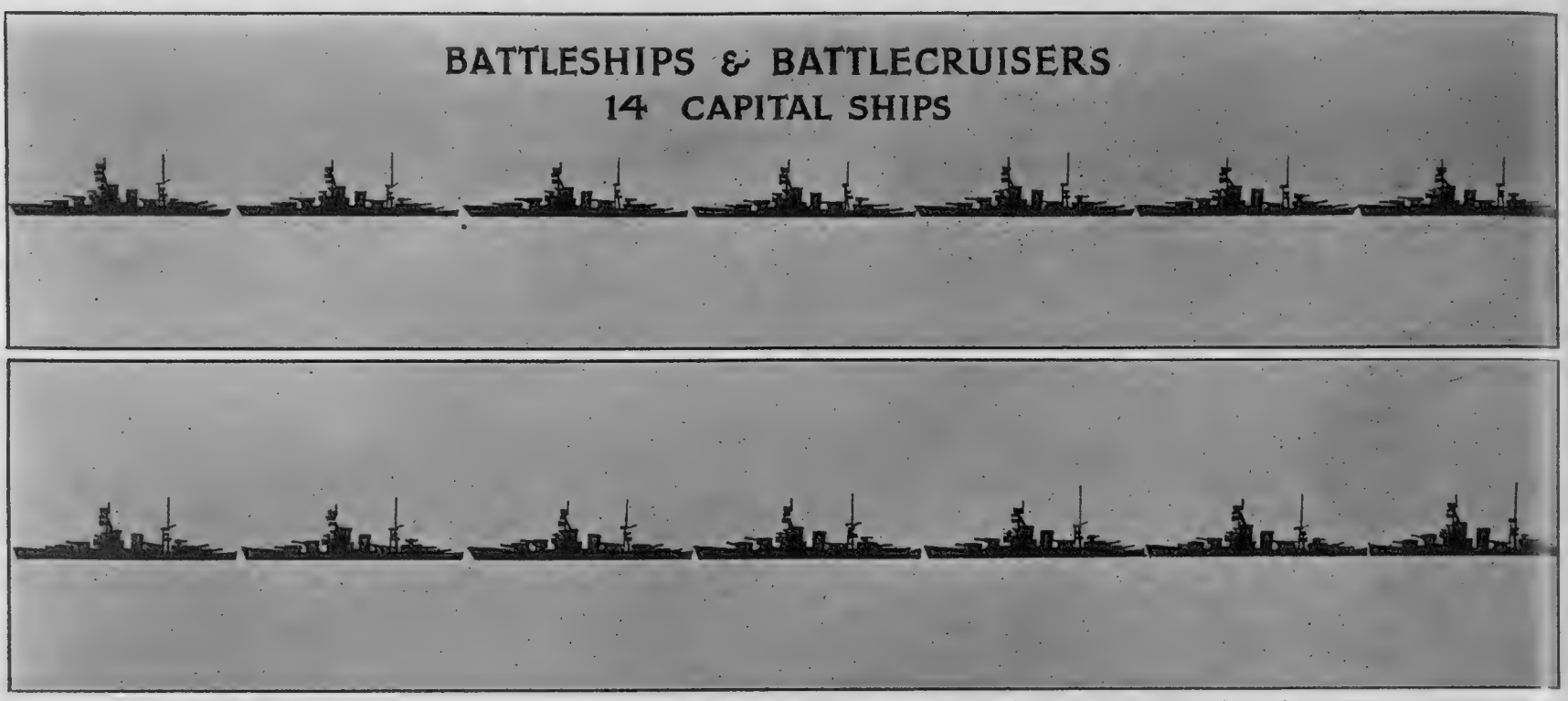
THE ENEMY'S STRENGTH IN DESTROYERS IS NOT EASY TO GAUGE: Before the outbreak of war Germany possessed some 22 destroyers. These were increased by another 17 which may all have been completed by the spring period of this year. There were heavy losses at Narvik and other losses at Gydnia. There were also about 40 torpedo-boats in the German Navy

The German Navy possesses a considerable number of the small, fast torpedo-boats, which were the latest type of craft to be developed by practically all the leading navies of the world. The Italians prided themselves on these fast speed-boats, but neither they nor the Germans have yet accomplished much by this arm. As they can be very rapidly produced compared with other larger naval classes, exact figures cannot be given as to numbers. It may be said in general that the German Navy has not neglected the smaller accessory types of vessel which are necessary to the efficient working of a navy

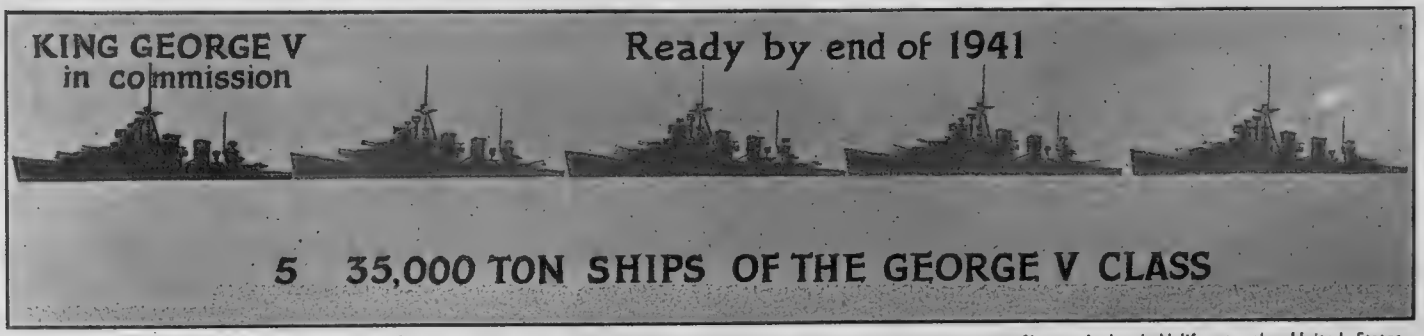


A VERY INVOLVED PROBLEM—THE NUMBER OF GERMANY'S SUBMARINES: In September 1939, at the outbreak of war, it was generally presumed that the enemy had about 71 U-boats in her possession. This number was later increased; according to some authorities to as many as 150 in the spring of this year, when a considerable number of them may begin to operate against Britain on the high seas

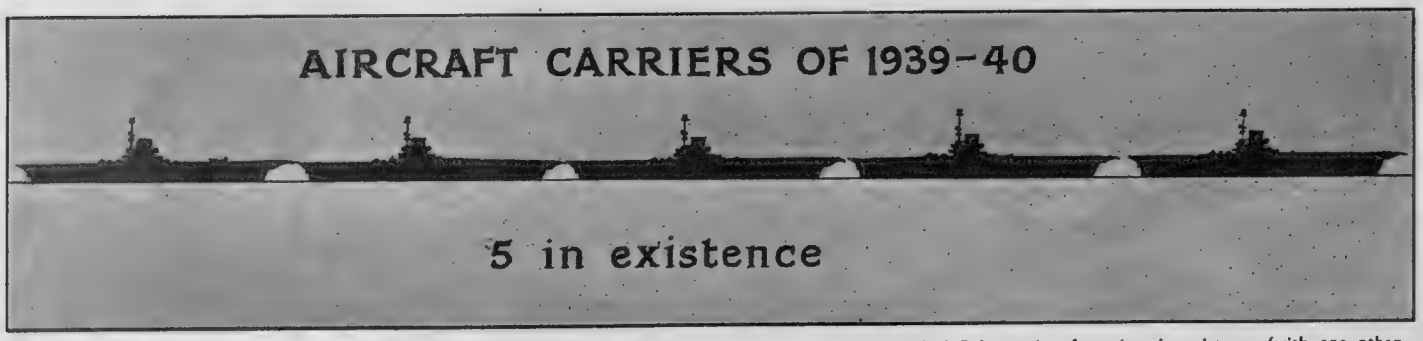
THE BRITISH NAVY OF TO-DAY: *A General Survey of its Strength in September*



FOURTEEN EXISTING BRITISH CAPITAL SHIPS : Before the *King George V* came into commission there were fourteen capital ships, that is, battleships and battle-cruisers. There had, of course, been the loss of the *Royal Oak* in Scapa Flow in the now remote days when that harbour received a large amount of enemy attention. All these ships have well-known names, as they all saw service in the last war. They are all maintained at a high pitch of efficiency, being reconditioned when necessary. Some of them have been in action on several occasions. They are no longer moored in harbour



THE KING GEORGE V CLASS OF FIVE : Of this class, the name ship is already afloat and in commission. She took Lord Halifax to the United States recently. The four others were planned to be ready for sea some time during the current year; though far advanced, it may require an exceptional effort to keep to this programme. But as wonders have already been accomplished in many directions, it is to be hoped that the four will be in commission as planned. If so, this would give Great Britain 19 capital ships at the end of the year



THE FIVE AIRCRAFT-CARRIERS IN EXISTENCE : At the outbreak of the present war the British Navy had 5 large aircraft-carriers in existence (with one other smaller one). These vessels were considered to be very doubtful propositions in view of the possibilities of dive-bombing by enemy aircraft. Actual war experience tends to prove that in certain circumstances they can be of vital importance in carrying out a *coup* against the enemy

NEW AIRCRAFT-CARRIERS TO SUPPLEMENT THE FIVE IN EXISTENCE : The Naval High Command evidently believed that the aircraft-carrier had possibilities which would develop during actual modern combat, for four more were ordered and were to be ready by the end of the current year, when the British Navy should possess 9 of this type of vessel, barring accidents of a nature of which those in command are now fully forewarned

SUBMARINES

Started war with 59 completed, including some on subsidiary service only, and 10 building, all of which should be ready by now. No definite information about these 10, but the *Upholder* and *Utmost* have been officially mentioned, which are not included in the above; 25 officially reported sunk or missing.

Mr. Churchill's Increased

When Mr. Churchill was reviewing the state of the naval war in 1940, he let his mind dwell on the naval struggle which was to come. He said in the House of Commons: "We must clearly expect that attacks will be delivered upon the sea power by which we live, on which all depend, on a far greater scale than anything we have so far beaten back and beaten down. We have been making from the outset of the war immense additional preparations to meet these reinforced attacks, whether they come from U-Boats, from mine-laying of various kinds, or from the air." At the same time he analysed certain classes of warship, especially the capital ships, in a manner very apropos to the examination of the Navy given here. "It must be

(*Continued from above on right*)

modern battleships of the King George V class against which the enemy can only bring two. Therefore, we shall not be at any disadvantage so far as surface fighting is concerned.

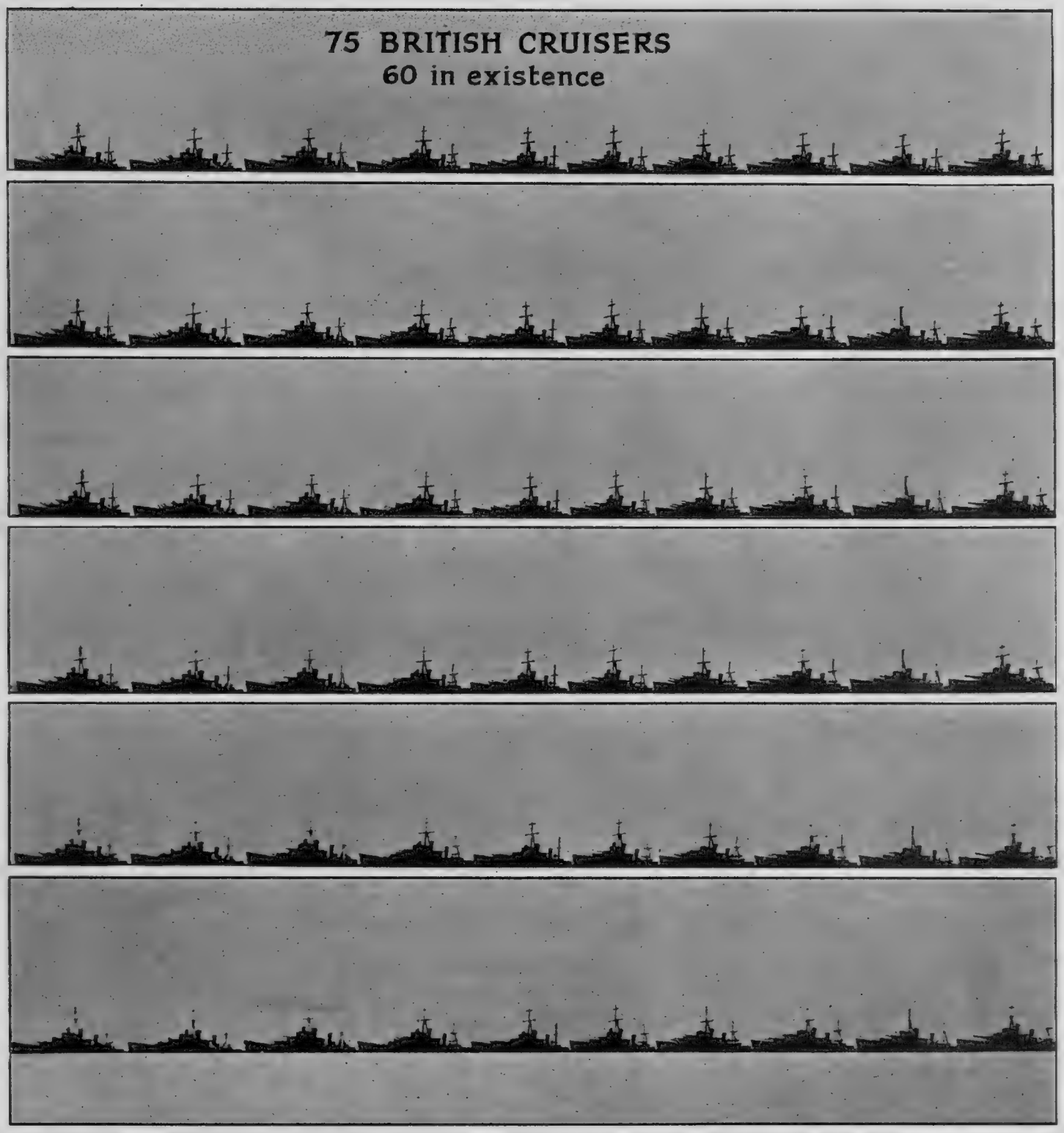
"But the fact that we are using old ships at this present time adds to our anxieties, because the attack from underwater or from the air has become far more formidable since they were built, because the torpedoes, mines, and air bombs of 1940 are applied to the structures of a bygone generation. Where one torpedo with a 500-lb. head was fired in 1915, six may be fired in a volley with much heavier heads in 1940. The air bombs descending almost vertically are also a menace which ought not to be underrated, and which did not exist when most of our battleships were built. But the new ships which we are building, which we have accelerated, and which will be ready in time, are capable of standing up to the air bomb, and are far better adapted to underwater explosions than anything we have to-day."

in the Main Branches of the Service as Indicated by the Figures at the Outbreak of War 1939, and with the Officially Published Additions and Losses Since that Date

It is not possible at the present time to give an exact picture of the British Navy; certain classes of vessel may vary somewhat from the figures given here, but a broad picture can be given, which will convey to the reader the essential strength and superiority of the British Navy over the German, with which it is immediately compared here. "*We must be very thankful that we have our Navy, the champion of freedom across the centuries, that we have our sea power, that great institution which has lived through so many wars in spite of all changes which have taken place.*"—Mr. Churchill in the House of Commons, 1940.

On right—

SIXTY CRUISERS IN EXISTENCE: At the present time the Navy has at its disposal some 60 cruisers, including those which have been converted into anti-aircraft cruisers. The number would be 64 but for the loss of four ships. More are well on the way.



Forecast of Attack

remembered," he said, "that at this moment there are no modern battleships in action. Many are building in various countries, but none are in commission. Through the various treaties into which we entered all our capital ships are old. Some have been rebuilt, but all except three were approved by me when I was last at the Admiralty more than a quarter of a century ago. In fact, we are fighting this war with the battleships of the last war. This does not affect the surface fighting, because our new ships will come along as soon as theirs, and in much greater numbers. In a short time the Fleet will be reinforced by five

(*Continued below on left*)

There are other classes of naval vessel—the little ships—which deserve attention, but it is not easy to set forth the present status of these classes at the present time. The fleets of armed trawlers which set out every morning on their several tasks and have to defend themselves against bullying enemies in the air are very numerous, and the constant dangers they run have taken a heavy toll, which means that constant replacement is necessary to keep these dauntless little craft up to the necessary strength.

FIFTEEN NEW CRUISERS TO SWELL THE RANKS OF THIS INDISPENSABLE CLASS: It is hoped that with war acceleration, fifteen new cruisers will be afloat and commissioned before the end of the year. They will be of the Dido or Fiji class, useful vessels indeed in these days of enemy threats to British convoys (*a picture of this new class is given on page 373 of this issue*)

DESTROYERS AND FLOTILLA LEADERS

Started war with 178 completed and 16 building, to be ready in 1940. Six building in Britain for Brazil of which some, at least, are officially reported to have been taken over. A large number officially reported to have been put in hand

FROM THE ZONES OF WAR

A Selection of Pictures of Naval and Military Interest

RETURN FROM GENOA—H.M.S. "RENOWN" STEAMING INTO A MEDITERRANEAN HARBOUR AFTER HER STERN LESSON TO ITALY: Although the bombardment of Genoa took place a few weeks ago, the above picture has only just reached England. To the sound of cheering from sailors on another British vessel, *Renown* returns after the bombardment which so shook up the Italians—safe and sound (as they thought) in Genoa

THE SHUTTLECOCK MARSHAL—GRAZIANI IN THE DESERT: Back and forth, from Libya to Rome and back to Libya, the Italian Marshal Graziani has been dashing hither and thither—at one moment in disgrace, at another implored by Mussolini to take up his duties again, or so report has it. This picture was sent to *The Sphere* by a correspondent who came across the Marshal just before the war, when he was touring the desert areas of North Africa by aeroplane; the pilot was forced to land hurriedly in the midst of a sandstorm. Whilst awaiting relief the Marshal wrapped himself in a native robe as a protection against the drifting sand: he is seated on his belongings and still wearing his flying goggles

HERE IS A PICTURE OF TWO OF MUSSOLINI'S FAST PATROL BOATS: It will be noticed that these torpedo-boats are manœuvring well within reach of shore, should a British naval craft inconsiderately turn up! They are manned by a crew of six, and carry anti-aircraft guns. Before the war, we were told blood-curdling stories of what this section of the Italian Navy was going to do: but so far it has confined itself to "patrol duty"

AN EMPIRE WARSHIP SINKS A COMMERCE RAIDER: H.M.S. *Leander*, a cruiser of the New Zealand Squadron, which intercepted and sank the Italian commerce raider *Ramb I* in the Indian Ocean. The *Ramb I*, which was flying the Red Ensign, was ordered to stop by the *Leander*, but instead she was foolhardy enough to hoist the Italian colours and open fire. The cruiser replied, with the result that the Italian ship was sent to the bottom within fifty minutes of the start of the engagement. These raiders who lurk in far-off waters and pit their armed might against isolated and often poorly defended merchantmen constitute a menace which is being effectively dealt with by the British Navy, whose formidable task it is to keep the seas safe for British shipping and safeguard vital lines of communication throughout the Empire. Sooner or later the raiders will all be adequately accounted for

A PEEP BEHIND THE SCENES WITH DR. GOEBBELS—A GERMAN "PROPAGANDA HOTEL" IN OCCUPIED FRANCE: This "document" has been received in London by a roundabout route: it is interesting as giving a peep "behind the scenes" of the working of Dr. Goebbels' immense propaganda machine. The building seen here is a small hotel in the Grande Place of a coastal town in Occupied France, which has been renamed the Hotel Lichterfelde (just to remind them of home!) by the Propaganda Company of German war correspondents who now fill it from cellar to attic. Every room in the building is given over to camera-men and journalists. They are waiting for the invasion of Britain to start—apparently they work as much as possible out of doors in case they might miss it!

GUNNERY LESSONS LEARNED IN LIBYA

The "Gunhow" under Actual Service Conditions

ARTILLERY in this war so far has not attracted the same public interest as last time, when the provision of guns and shells was the most spectacular task of the British Government. But the fact should not be overlooked—if only in fairness to our hard-working gunners themselves—that all kinds of artillery still constitute an indispensable part of the military machine. Indeed, as the accompanying photographs of ordnance at work in Libya show, the dominating feature of the modern battlefield is still the big gun—although with some modifications of previous practice.

For instance, the photographs of the Royal Artillery as they accompanied and prepared the way for that remarkable advance from stronghold to stronghold over the Libyan sands, clearly demonstrate one major point—the narrowing-down of our field ordnance to one or two standardised types of gun, notably the 25-pounder gun-howitzer, known familiarly as the "gunhow."

Most of the Libyan pictures show these guns, and it is to be presumed that the Army of the Nile largely relied upon them for preparation, covering fire, and counter-battery work; tasks that were formerly performed in such campaigns by the 18-pounder gun and the 4·5-in. howitzer. As will be seen, the "gunhow" is a sturdy, mobile, but essentially simple weapon. Mounted on bullet-proof, tractor tyres, it is drawn sometimes by a special six-wheel tractor, sometimes by an ordinary lorry, these vehicles acting as caissons or transport for the ammunition and the crew.

But the Libyan campaign evidently forced our men to improvise in many ways. The pictures show only too clearly under what difficult conditions they worked. The guns, it seems, had often to be operated without cover on open, inhospitable ground—completely reversing the modern theory of artillery, and going back to the spacious days of open warfare.

Such pictures as have arrived also demonstrate, however, the great adaptability of the "gunhow." With tyres scoured and bleached by sand and sun, all frills discarded in the speedy advance, camouflage dispensed with—we must remember that the Italian Air Force had been practically forced from the air—they are yet seen to be maintaining a steady rate of fire. A particularly unpleasant feature of this work must have been the enveloping sand-clouds, almost looking like smoke-screens in the close-up pictures. Such miniature sand-storms were, of course, caused by the concussion of the discharge, and it is interesting to note that this would vary with the type of charge used in the weapon. The great feature of the "gunhow," indeed, is the arrangement whereby it can fire various strengths of charge, thereby varying the muzzle-velocity and the trajectory.

Still more important, the "gunhow" can act as the maid-of-all-work of the Royal Regiment. Not only can it be used against troops in the open or entrenched, lay smoke-screens and cut wire, but it can deal with enemy batteries and in general provide covering-fire for the infantry in attack and defence. It already has a good record against tanks. To put the matter in the simplest terms, by varying the charge—the greater the pressure the greater the speed of the shell at the muzzle, and the flatter the trajectory—the "gunhow" can either fire hard and direct at an objective, or drop a shell neatly into a fort or trench.

Last—but by no means least—Britain's anti-tank guns. Photographs here show these weapons at work during the recent campaign in the Western Desert. If any German tanks were landed, from the sea or the air, in Britain, theirs would be the greatest responsibility, but one that they are quite capable of meeting. Experience in Libya has shown this. The desperate attempt of the Italians to break through our thin cordon on the road to Tripoli was finally foiled by these weapons—and their heroic gunners. Casualties were very heavy among the crews, but the Italian tanks did not get through.

Indeed, there is scope for an epic poem in praise of those anti-tank gunners. Fortunately, their weapons are superb and rarely let them down. The standardised anti-tank guns, shown in the photographs, are 2-pounders, and capable of firing about fifteen shells a minute. They are extremely mobile, and the wheels are quickly removed for action, long, folding legs being pulled out to make a steady tripod in their place. Perfect rigidity is essential.

Donald Cowie

WHEN FIRING IN THE DESERT THE GUNS KICKED UP MINIATURE SAND-STORMS, CAUSED BY THE CONCUSSION OF THE DISCHARGE

"ALL FRILLS DISCARDED IN THE SPEEDY ADVANCE . . . CAMOUFLAGE DISPENSED WITH," BUT MAINTAINING A STEADY RATE OF FIRE IN FRONT OF TOBRUK

UNDER ACTIVE SERVICE CONDITIONS (PARTLY OWING TO THE RAPIDITY OF OUR ADVANCE IN THE DESERT), THE GUNS WERE FIRED WITHOUT ANY PROTECTION WHATEVER FOR THE CREWS

A MODERN TANK-BATTLE: ANTI-TANK GUNS REPELLING AN ATTACK—SHOWING THE CLOUDS OF WHITE SMOKE USED BY THE TANKS TO HIDE THEIR REAL INTENTIONS

SMOKE—An Important Feature of Tank Tactics

WHAT would be your chief impression if you were privileged to watch, from some discreet eminence, a modern tank-battle? That question can be answered quickly. The countrywould appear on fire.

Yes, you would see precious little of the battle, only gazing—as the accompanying photograph demonstrates—at a vast number of smoky fires.

From the viewpoint of the tank, it is one more lesson taken from sea warfare. Whatever their fundamental strength, tanks, in attacking a strong position, must take care not to expose themselves unduly to the fire of anti-tank artillery. Moreover, half their battle is won if they can achieve surprise.

THE GUNNERS REST BENEATH THEIR GUN: WITH STEEL HELMET AND BOOTS NEATLY PLACED OUTSIDE THE HOTEL DOOR . . .

So, many smoke-shells are carried in the monster's ammunition stores, and in their favourite manœuvre—turning suddenly and seeking to take the enemy by surprise on flank—their guns emit dense clouds of white smoke which last just long enough to hide their real intention.

But smoke is equally important to the anti-tank defence. Modern anti-tank guns are extremely powerful for their size, and one unfortunate result of this is that they produce a brilliant flash, which gives their position away. And it is a lamentable fact that once the position of an anti-tank gun has been pin-pointed, everything on the opposite side concentrates upon its speedy extermination. Our tanks often rode down the Italian anti-tank batteries in Libya, or came round to the rear of them and destroyed their effectiveness with one or two carefully-aimed shots.

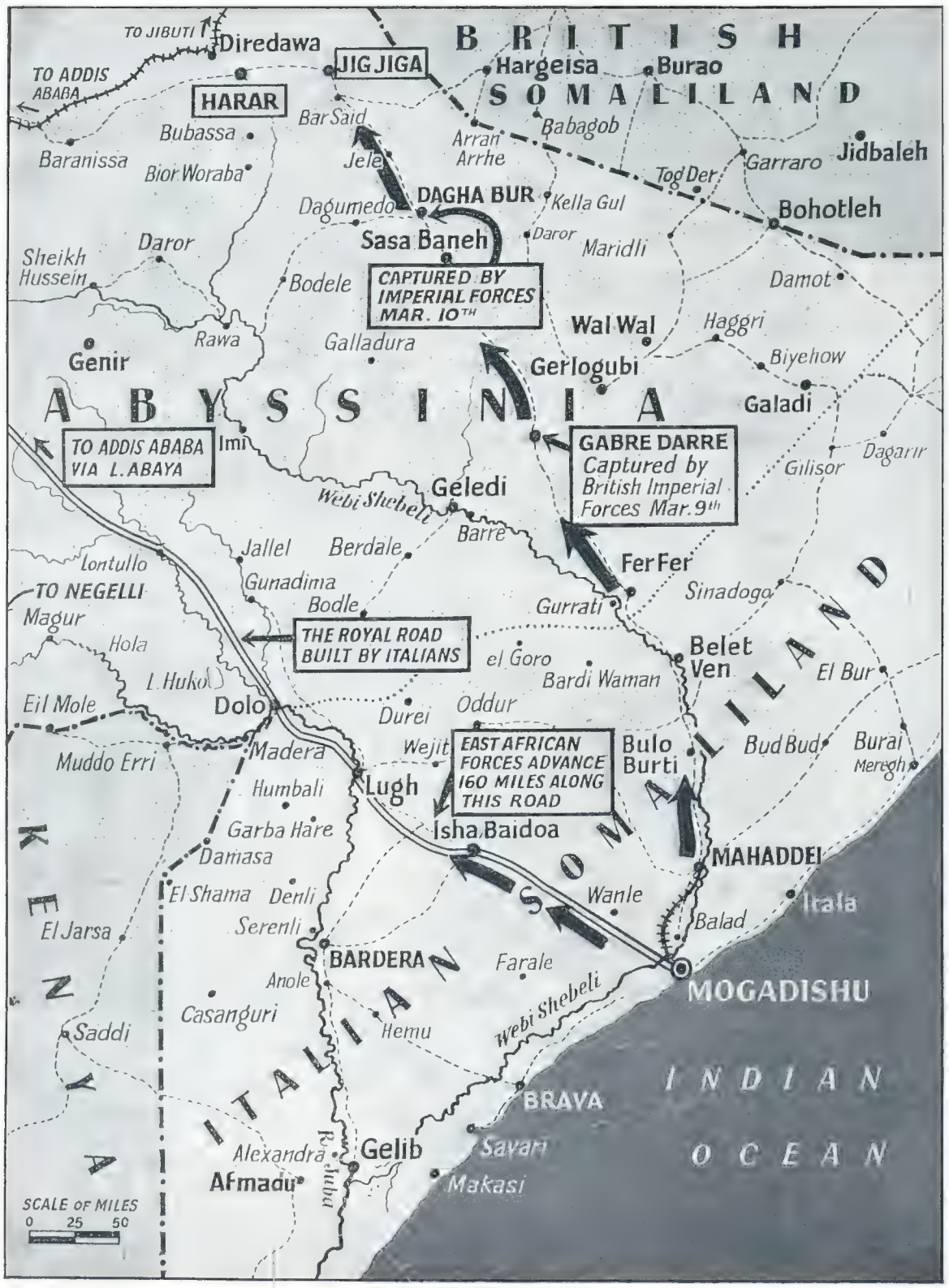
Therefore, the defence also carries its smoke-shells. The fumes admittedly make accurate firing difficult, but once a tank has been registered in the sights the gun can be fired "blindly" through the screen.

THE METHOD OF MOUNTING AND CONCEALING ANTI-TANK GUNS ON A HEAVY LORRY DURING THE ADVANCE INTO THE WESTERN DESERT

ONE OF THE NEW TWO-POUNDER ANTI-TANK GUNS OF THE BRITISH ARMY ON ITS SPECIAL CARRIER DESIGNED FOR DESERT WARFARE

WATER PROBLEMS WHERE SOUTHERN ABYSSINIA MEETS SOMALILAND: One hundred thousand animals, camels, goats and sheep, will visit this comparatively small water-hole in one day and drink their fill. This will give some idea of the underground water-supplies in the south-eastern part of Abyssinia, where gypsum deposits allow water to sink below the surface and to rise again at other points. This picture is typical of the scene when the natives come to water the huge number of cattle mentioned above

AFTER MOGADISHU: HOW THE IMPERIAL FORCES HAVE BEEN CONVERGING ON THE MOUNTAIN STRONGHOLD OF THE ITALIANS IN ABYSSINIA



WITH the capture of Jubaland, the virtual control of Italian Somaliland by the occupation of the chief seaports and the river stations on the Juba, and the rapid advances into Abyssinia, the reconquest of British Somaliland seems only a matter of time. Several lines of approach are open along routes upon which the Italians have spent much money in anticipation of events which have not resulted quite as they expected. Victorious troops may approach British Somaliland by several roads formerly used by British and Italian officials, who often exchanged courtesy social visits before the present conflict. The most northerly road enters our colony east of Erigave, a station lying in a shallow basin on the south side of the 6000-ft. coastal range that hugs the shore line in these parts.

Since 1919, this delightful spot has been used for the cultivation of vegetables under the direction of the District Officer stationed at Erigave, and it furnishes the Colonial officials with a plentiful supply of produce. Under irrigation, most English vegetables flourish, such as cabbages, cauliflowers, carrots, onions, tomatoes; and many fruits, like oranges, lemons and figs thrive also. A precipitous scarp renders the northern sea side of this range nearly inaccessible, but from its summit magnificent views are obtained, and it is then possible to picnic under pine-trees at a temperature approaching that of an English summer day.

On the south side of the mountains, a broad, undulating plain slopes gently eastwards, causing all drainage from the hills to run into what was, until recently, Italian territory, but due to a widespread development of gypsum, much of the rainfall enters fissures and travels by intricate channels underground, leaving the surface bare and waterless. Rough calculations have shown that not less than 50,000,000 gallons have been withdrawn in a single season from one water centre in the gypsum area without exhausting the supply, although a gradual falling level indicated a progressive rate of depletion.

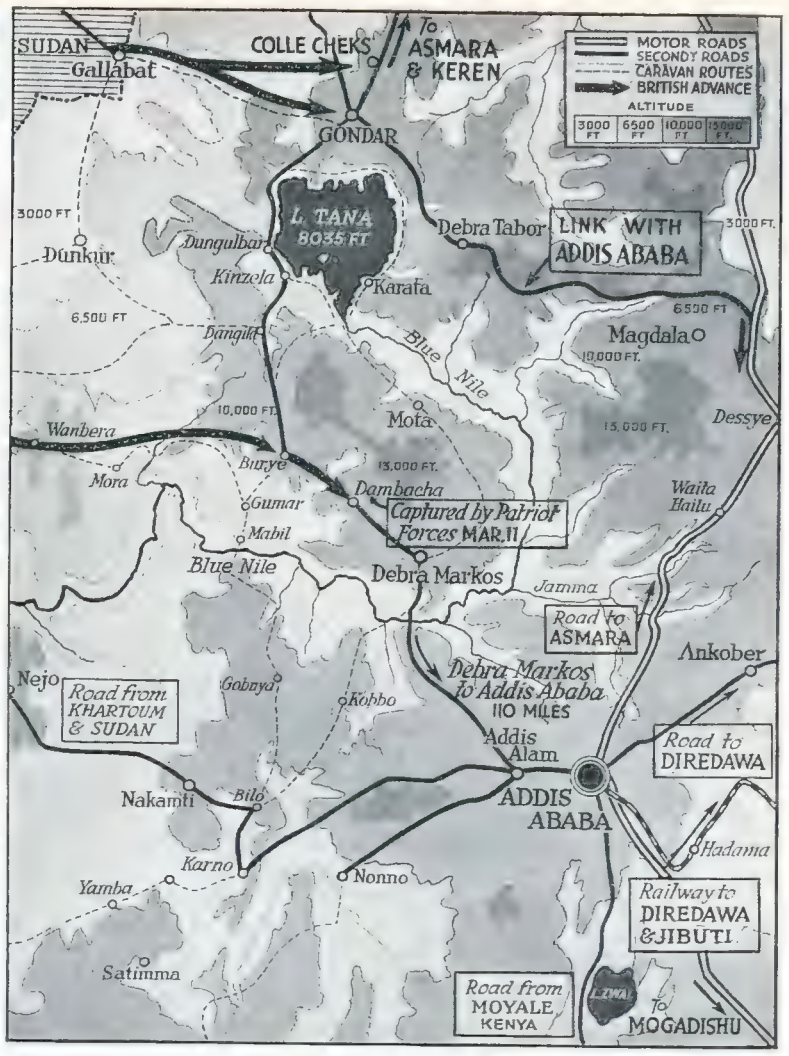
Within a few yards of the British-Italian frontier line at Tug Wajaleh—which before the Italian occupation was undefined and free for the movements of the nationals of both Abyssinia and the Colony—a very useful supply of good quality water was tapped by the British, thereby opening up a big expanse of splendid grazing country for cattle. The Italians immediately set to work to imitate our performance within almost a stone's-throw of our works. On striking water, the news was given world-wide Press publicity, and described as a wonderful discovery on the edge of British territory which the unenterprising British had left undeveloped. Considerable local annoyance was

***On left*—HOW THE APPROACH IS BEING MADE TO THE JIBUTI RAILWAY FROM MOGADISHU:** After the occupation of Mogadishu, the Imperial Forces began to move up the "Royal Road" constructed by the Italians from Mogadishu to Addis Ababa by way of Isha Baidoa, Dolo and Negelli. Along this the advance has been considerable: but the real thrust seems to have developed through Gabre Darre and Dagha Bur, towards the Ogaden country and to Jig Jiga and Harar, near which runs the railway line from Addis Ababa to Jibuti. This thrust seems to have been made in a series of gigantic hops, as shown in the accompanying map

A LAKE OF WATER FORMED BY A GYPSUM WELL WHEN THE UNDERGROUND PRESSURE IS GREAT : At certain times, the pressure upon the underground stream is sufficient to force the stored-up water above the ground-level and to form a lake in a portion of an otherwise dry river-bed. In the dry season this is, of course, a grateful sight

THE ITALIANS ARE EVERYWHERE RETIRING FROM THE GREAT GRASSLAND SWEEPS TOWARDS THE MOUNTAIN MASS OF WESTERN ABYSSINIA : This picture gives a good impression of the sweeping lines of the country, which gradually rises to the Ogaden plateau. Trees are sometimes very rare objects. This one has nests of the weaver birds in its branches

A LOCAL SOLUTION OF THE WATER PROBLEM IN SOMALILAND : These two Somali women are carrying water to their homes many miles away in skin water-vessels. The intervening country is probably quite waterless. These Somali women are slender in build, and present quite a different silhouette to the hefty ladies of the Turkana district around Lake Rudolf



TWO VITAL ADVANCES INTO ABYSSINIA FROM THE WEST : By the occupation of Colle Cheks, 15 miles north of Gondar, a vital road to Asmara and Keren was commanded. Farther south, the capture of Dambacha by patriot forces probably left only the road by Debra Markos open for communication with Addis Ababa. The main motor-coach road from the port of Mogadishu on the Indian Ocean (now in our hands) to Addis Ababa and then on to Massawa on the Red Sea is shown on the right

AN OVERHEAD VIEW OF GONDAR, SHOWING THE OLD PORTUGUESE PALACE-FORT IN ITS CENTRE : It was in the early fifteenth century that the Portuguese, under a great conquering and exploring impulse, invaded Africa, and in the result reached Gondar, where a Portuguese palace-castle exists to this day. One can see it in this view, surrounded by the little beehive hut-houses of the Abyssinians. In the Italian operations of 1936 Gondar was the scene of a tremendous motorized advance to Lake Tsana—through territory, however, which proved to be unoccupied

caused by the receipt of unpleasant cables from the Colonial Office, asking for an explanation of such lax conduct on the part of officials in the Colony. This effort to disparage British achievements and glorify Italian attainments was the more inexcusable because their supply proved to be insignificant, and crowds of men and women daily flocked unhindered over the frontier to fill their water-vessels at our installation.

Towards the end of the dry season, both people and animals suffer terrible privations and hardships in those parts of Somaliland removed from rivers and perennial water-supplies. Delayed rains not only cause a serious shortage of water, but such vegetation as survives the long drought wilts and dries or gets devoured by the white ant, so that feed is reduced to miserable proportions. In desperation, the herdsmen cut down trees and dig up the roots of bulbous plants for their animals, but the gradually weakening beasts, unable to defend themselves against pests, are preyed upon by blood-sucking horse-flies, birds and ticks, etc.

For miles around water-holes, not a vestige of edible material remains, and before and after watering they have to struggle over miles of bare, dusty ground before any sort of relief is possible. On the approach of the wet season, all eyes are anxiously cast on the sky for signs of rain, and the intercession of Allah is a daily prayer. The rains break with sporadic thunderstorms of restricted extent and varied intensity, but a single precipitation of moderate amount causes a local transformation of the scene. Within a few days, parched trees burst into leaf, flowers appear, and green grass sprouts from the barren earth.

The change caused by a single shower is almost fantastic. In parts where the fertile red lateritic, or black cotton, soils are deep, the rainfall, if moderate, will support to maturity fair crops of millet, maize, castor-oil, beans, and other useful plants, but, like the herdsman, the poor, industrious farmer has an anxious time protecting his growing crops from the predatory attacks of wild and domestic animals, as well as human beings, and from the ravages of the white ant, locusts, grasshoppers, blights, swarms of birds, mice and rats, which seem endemic pests.

A. Beeby Thompson

ON BOARD "KING GEORGE V"

A Series of Pictures of Britain's Newest and Biggest Battleship, Showing Details of the World's Mightiest Fighting Machine

THE EXTERIOR OF THE COLOSSAL AFTER-TURRET, WHERE FOUR OF THE TEN 14-IN. GUNS ARE MOUNTED : The projection on the right is the armoured end of the range-finder. The thickness of the armour is shown at the angle of the turret—and it *is* thick !

On right—

A—The quadruple after turret is big enough to have its guns so widely spaced that they can be elevated separately and reloaded quickly. Only 40 per cent. of the ship's guns fire astern ; the good old naval tradition that fire should be concentrated on the enemy who is running away remains ! **B**—The ship is so big and broad that she seems to be low in the water, but even aft she has more freeboard than most ships, which means better seaworthiness and far greater comfort. **C**—What the naval architect looks for—a beautifully clean wake which shows that she gets her speed with the minimum waste of horse-power. Fuel consumption goes with horse-power, and the ship's ability to keep the seas in search of the enemy goes with the fuel. **DD**—The 5·2-in. anti-torpedo and anti-aircraft guns spaced more widely apart than ever before, which enables them to maintain a remarkably rapid rate of fire. **E**—The boats (mostly motor) collected out of the way of the guns as far as possible. **F**—The two tripod masts with signal yards : a return to a wise precaution when they are so easily shot away

H.M.S. "KING GEORGE V" — An Overhead View of Britain's Newest and Costliest Battleship : 35,000 tons ; weight of armour (unofficial), 14,000 tons, and water-line thickness of 16 in. ; ten 14-in. and sixteen 5·25-in. guns ; complement, 1,300 or more ; cost, over £7,000,000 (*for further notes see details on left*)

"KING GEORGE V" IN A HEAVY SEA : THE ANCHOR CABLES ARE NOT USUALLY AS SLACK AS THESE IN A BRITISH BATTLESHIP : The picture, in fact, minimises the heavy sea, which must have been really colossal to come over her high bows in this fashion. Paravanes are seen stowed against the deck gear-lockers abaft the breakwater : the rings round them are the rope lashings. The hatches to below decks are securely battened down

A TERRIFIC WEIGHT OF METAL—FOUR O

Aligned to a hair, the four guns of "A" turret on the forecastle are here trained on the beam. The big gun-ports show the colossal elevation which can be given to the guns ; if necessary, they can actually

FOUR OF THE GIANT GUNS, WITH SECONDARY ARMAMENT OF 5·25-IN. GUNS IN THE BACKGROUND : This is the after 14-in. gun turret : davits for the accommodation ladder are laid out on the deck at the side of the ship ; beneath the guns are some of the ship's ventilators

LOOK-OUTS AT THEIR STATIONS : Note the Marine on the left with huge, steadied prismatic binoculars, looking out for small objects, such as the periscope of a submarine. Voice-pipes just under his mouth would ensure that his warnings are conveyed instantly. The cylindrical instruments in front of him enable precise details to be added to his warnings—bearing, etc.

THE BATTLESHIP'S MIGHTY 14-IN. GUNS bring down low-flying enemy aircraft by their blast alone, without bothering about a direct hit. *King George V* has two such turrets, and a third turret mounting two guns of the same calibre

CREWS SPONGING OUT A 5·25-IN. GUN AFTER FIRING : The 5·2-in. anti-torpedo and anti-aircraft guns are kept carefully secret, but are believed to be the best in the world

THE QUADRUPLE 14-IN. GUNS OF THE AFTER TURRET ARE HERE BEING FIRED : **A**—The four 14-in. gun after-turret, showing the flexibility of the latest type : the four guns are at three angles of elevation. **B**—5·2-in. anti-torpedo and anti-aircraft guns, the Navy's latest pieces for these purposes. **C**—The eight-barrelled pom-pom, firing 800 two-pound shells per minute. Known as the "Barrel-organ" in the Navy. **D**—The collapsible electric crane for hoisting in aircraft at the end of their flight. One of the most useful fittings of the ship, this "will do anything but wash dishes." **EE**—Searchlights under distant control, so fitted that they will not dazzle either the gunlayers or the ratings in charge of the searchlights

The "ESCARPMENT"

From the Marmarica Region Along the Coast Inhabited by the Italian Colonists in Libya: a Special Problem Now Confronting the Newly-

THE TYPE OF COUNTRY IN THE REGION KNOWN AS THE "MARMARICA": After leaving the flat desert country, gully-scored, of the Western Libyan Province of Egypt, our victorious forces entered the somewhat higher ground of the "Marmarica," the district lying to the south of Bardia and Tobruk. Here the stony area is covered with a bushy type of camel scrub: this, in turn, leads up to the Escarpment of the Cyrenaican Plateau proper shown in other pictures reproduced here. The view above, so typical of this Marmarica region, was taken during the actual operations, and shows some of our light tanks out on patrol in front of Tobruk

CLIMBING UP THE "ESCARPMENT" FROM THE MARMARICA PROPER: THE PLATEAU IS REACHED IN TWO MAIN IN HEIGHT AND THE

ON THE SUMMIT OF THE PLATEAU, WHERE WONDERFUL ROADS HAVE BEEN CONSTRUCTED BY THE ITALIANS: Leading up to, and across, the upland areas, the Italians had built fine roads from Bardia and Tobruk. This was a work to which the Italians had devoted themselves for years, the idea being to link up the Colony by motor roads from Tripoli in the west to the Egyptian frontier in the east. At points these roads zigzagged up to gain an easier stretch, where the long, straight roads continued to climb gradually until the Italian settlements at Giovanni Cyrene, Berce, and other points were reached

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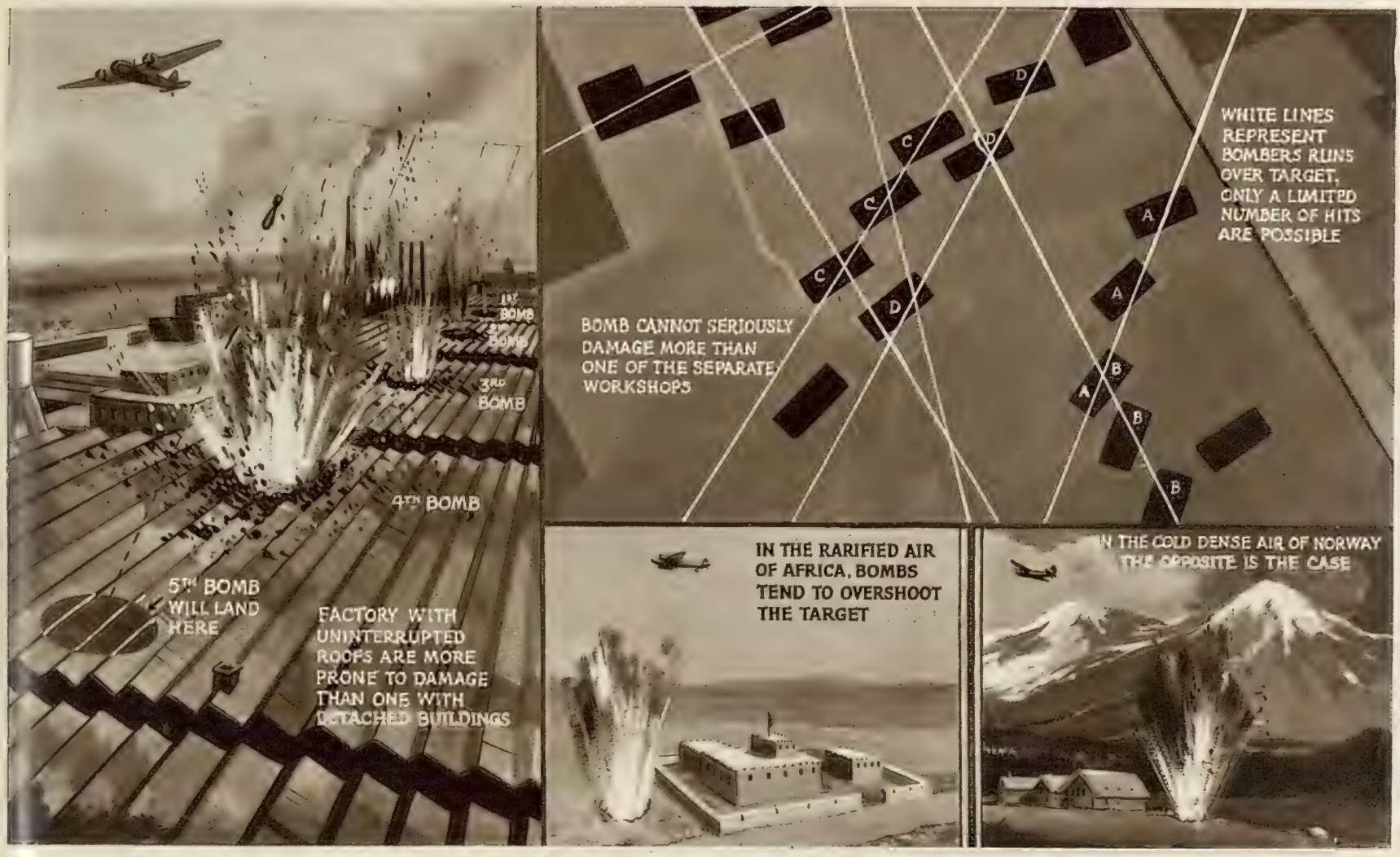
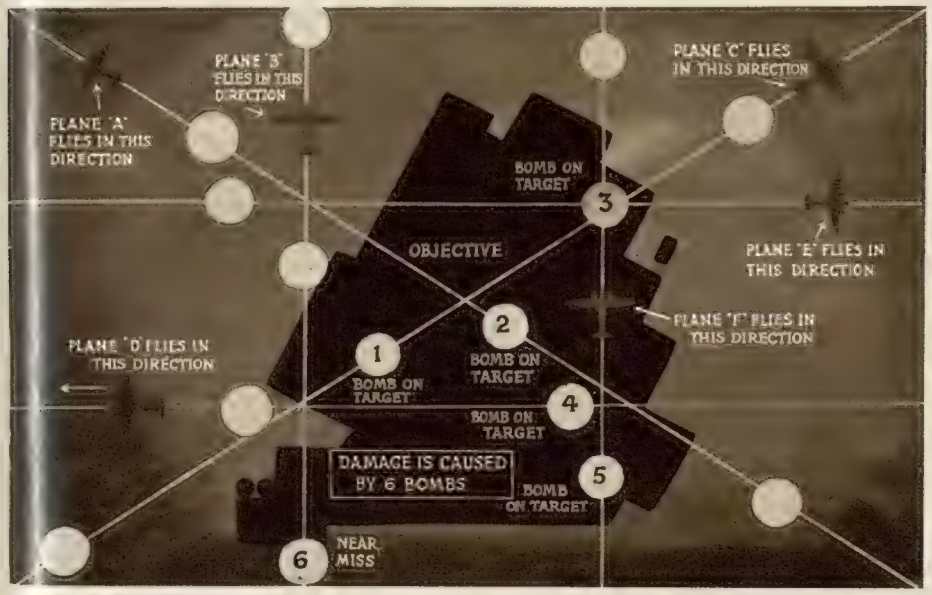


A BIG FACTORY IS, OF COURSE, A FAIRLY EASY TARGET : BUT A FACTORY SPECIALLY LAID OUT MIGHT BE DIFFICULT TO DESTROY IN ENTIRETY

Obviously a huge factory, occupying a big floor area for the purpose (say) of mass production offers a fine target for the bomber. To-day, however, designers are working on plans which will render the entire destruction of a modern factory almost impossible—at least, unless it is subjected to an almost continuous series of attacks : the ground plan of such a factory is indicated in the drawing in the upper right : no matter in which direction the aircraft flies, the bombs can only destroy quite small portions of the factory buildings in any one run. The two smaller drawings indicate another aspect of the bombing problem : the part played by the weather. In the hot, rarefied air of Africa, the pilot tends to allow his bombs to overshoot the target owing to the smaller resistance of the air : in the colder climate of, say, Norway, the bombs tend to fall short, as air resistance is so much greater



"PATTERN BOMBING" : To bomb important targets from a good height, this method is often used by a large concentration of aircraft. One which might be used by six planes is shown above

Of these preparations none is more striking than the layout of all the newer German aircraft factories and arms works. Perhaps the instance of Oranienburgh, the great factory of the Heinkel concern, near Berlin, is the best of all.

Oranienburgh was designed as the model aircraft factory. Completed some four years ago, it was laid out to the plans of Dr. Ernst Todt, who has had much to do with the construction of modern buildings and works in Germany.

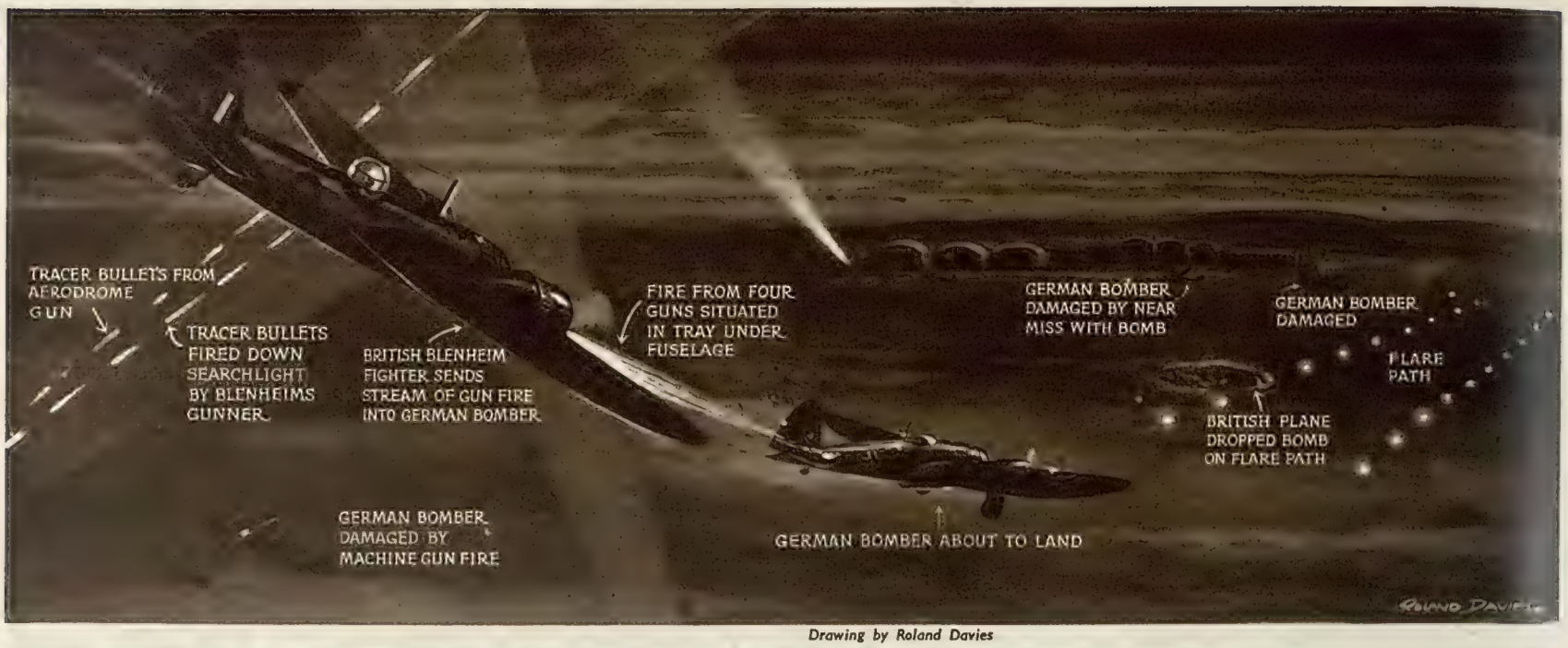
The new Heinkel factory was built with three main objects in view : an extremely high rate of production, good conditions for the works staff, in spite of long hours, and the minimisation of bomb damage. To this latter end the buildings in the works were staggered, so that no bomb, however big, could damage more than one of the eight separate workshops. The works were thus laid out to combine at one time the advantages of dispersal and concentration. The buildings are each self-contained, with their own power, heat and water. They are carefully camouflaged to an extent not usually considered. For instance, camouflage paint can be shown up by photographs taken through special filters. Instead, the flat roofs of the Heinkel buildings are covered with earth and have evergreen bushes planted upon them.

The factory is laid out with large grounds and special facilities for the recreation of the workpeople, so that the maximum work can be extracted from them with the minimum of breakdowns. Ever since its start the Oranienburgh plant has been engaged on the production of Heinkel He 111K bombers. It is now believed to be turning over to the production of the newer four-motor He 177 bomber.

Obviously, a plant of this sort, with something like 9,000 employees, is a vital target for attack. It lies some 630 miles from London, so that it is well within the range of our heavy bombers. Certainly it is strongly defended with searchlights and guns, and there are several night-flying fighter squadrons of the *Luftwaffe* in the neighbourhood.

Yet, with its specially planned layout, the most difficult part of the raiding aeroplanes is to score hits which will cripple the works. The arrangement is such that precision bombing is absolutely necessary, and one bomber cannot hope to do more than local damage in one " run " over the target. Despite all their years of careful preparation, the Germans probably feel none too confident of their ability to carry on under the growing weight of the R.A.F. offensive. Oranienburgh may prove to be far from invulnerable after all.

THE RESULT OF A STICK OF BOMBS : The forecourt of Buckingham Palace, and the area beyond : showing five bomb craters, all in a line—obviously, the result of a "stick." A sixth bomb fell on the North Lodge, and partially demolished it



Drawing by Roland Davies

AERODROME SITTING—As Now Practised by the R.A.F. Over German Night-Raiding Aerodromes

In his "Air Commentary" last week Mr. Charles Grey referred to "aerodrome sitting"—that is, bombing the bombers—on their own home aerodromes. This drawing by Mr. Roland Davies shows how the R.A.F. carry out this very important task, which may (later on) have quite an effect in discouraging the German bombers of Britain. The aircraft engaged are usually Bristol Blenheim fighter-bombers. "A pilot of Fighter Command who carried out an offensive patrol," states the Air Ministry News Service, "bombed the aerodrome and machine-gunned enemy aircraft returning from or setting out for this country. He hit and damaged several enemy bombers. The pilot stayed over the aerodrome for nearly an hour. He first saw an enemy machine landing, and as he was too near to machine-gun it he dropped a bomb on the flare-path. Five minutes later he saw another enemy machine coming in and dived on it. He saw his bullets entering the plane, which disappeared. About a quarter of an hour later he attacked another German aircraft and fired long bursts into it. . . . Seven minutes later he fired into another enemy plane and then dropped a final bomb on the flare path. During these actions our fighter-pilot's machine was often caught by searchlights and fired at by ground defences but was not hit, and the pilot refused to be driven off"

AIR COMMENTARY by C. G. GREY
(Founder of "The Aeroplane")

The AIR WAR in the BALKANS

—And Other War-time Aviation Subjects

THOSE BALKANS.—More trouble in the Balkans this spring, too. One of the curiosities of history is the way in which certain quite small areas seem to accumulate all the wars. From Cæsar's Gallic Wars, when one of his Three Parts of Gaul included those quarrelsome folk, the Belgæ, down to Dunkirk last year, our Armies, and many others, have sworn horribly in Flanders, and have been buried there in millions by this time. All across Europe there are similar war areas, where nation after nation has made history. And yet there are areas many times as big which have never seen a battle. The explanation naturally is that those war areas are on the regular tracks of invading hordes—always from the East.

Now Bulgaria looks like having some more war experience, in spite of the best efforts of King Boris to keep out of it. I like the phrase attributed to him—"My wife is pro-Italian, my Ministers are pro-German, my people are pro-Russian. I am the only neutral in the country." If he did not say that he ought to have done so. And he is the son of the notorious "Foxy Ferdinand" of the first Anglo-German War. Which perhaps is why a prince of a neighbouring nation described him to me not long ago as "one of the cleverest men in Europe, and absolutely trustworthy—so far as you can see him." Probably one has to be like that to keep one's seat in the Balkans.

Aeronautically Bulgaria does not count. There is no Bulgarian Air Force, for practical purposes. The people have always been too poor for private flying, but the Government has, or had, an aircraft factory elegantly called Darjavna Aeroplannia Rabotilnitza. Also Gianni Caproni, the great Italian pioneer constructor, started a branch at Kazalnik for the care and maintenance of Bulgarian Army aeroplanes of his make.

The Bulgarian Army had a small but heterogeneous collection of aeroplanes, mostly samples sold at a special price as bait—Capronis, Heinkels, Dorniers, and odd German, Italian and French trainers. Their best aerodrome is Bojourishte, near Sofia; there are others at Kazanlik, Jambol and Gorna Orjehovica, and there was the beginning of a seaplane station at Peinerdjik, near Varna.

Something About Bulgars.—Some Bulgars can fly, but nobody has ever heard of a first-class Bulgar pilot, probably because the people are basically Russian, but not horse-riding Tartars—horsemen can always fly. They walked across Russia some time about when Rome was growing. They seem to belong to the tribe of Tubal, or Tobol—whence Tobolsk, in West Siberia, and T'Bolgar—which seems to have been the running mate of the tribe of Mesech or Mosoch, whence Moscow and the Muscovites. (See *Genesis*, Chap. x, 2, and *Chronicles*, Chap. i, 5. The Old Testament is excellent history.) This Tubal, or Tobol, was no relation to Tubal Cain, the iron-worker—from whom we get T'Bulcan, Bulcan, and so Vulcan, and volcanoes.

They were an infernal nuisance to the Byzantine Empire till Basil Bulgaroktonos (Emperor) cornered the whole Bulgar Army in a Balkan defile, put out both eyes of nine out of ten of the prisoners and left each tenth man one eye with which to lead the nine blind men home across the passes. The nation was kept so busy feeding the thousands of blind men that it gave no more trouble for generations. Gibbon, in *The Decline and Fall*, says rude things about the Bulgars.

Like their Asiatic relatives, the Russians and Turks, the Bulgar infantry are grand in trenches, but we are not likely to fight them. And we cannot reproach them for not fighting the Germans. Russia's reproach to them was just clumsy humour. It cannot have been meant seriously. It was not even good chess-playing. One might as well reproach a Constantinople pariah dog for not standing up to an Alsatian.

Opening Rumania to the R.A.F.—That has nothing to do with war-flying directly, but a lot indirectly, because, if the occupation of Bulgaria opens the way for the German Army to Greece, it also opens the way for our Air Force to the German Army, and to Rumanian oil—which is much to our advantage.

We ought to have bombed that oil months ago, as soon as Rumania came under German control. But we have such a frightfully tender conscience about flying over neutral countries.

A week or two ago I met a friend from Bucharest, who had arrived here with something interesting for our Government. He knows the Balkans from the air as few do. He has flown over them from Athens to Beograd—commonly called Belgrade—and from Istanbul—formerly Constantinople—to Sofia and Bucharest for twenty-four years. He began it in the Army of the Orient in 1916. According to him there is no practicable road for tanks and mechanised troops from Bulgaria into Greece, except through one or two narrow passes in which a few resolute bombers could bring down mountain-sides on marching armies, and in which machine-guns and mountain guns could hold up any advance. That is why the Germans want the old Serbian roads through Nish to Monastir and Uskub, or, alternatively, want to get into Greece by way of Turkey.

From either Turkey or Greece our Air Force can strike at Rumanian oil. My Bucharest friend tells me that, in spite of statements to the contrary, possibly by vested interests, Rumanian oil makes very good spirit for aero-motors and cars. Perhaps it is diluted or softened with coal-petrol, much as the spirit produced by Colonel Bristow's Low Temperature Carbonisation from English coal had a civilising effect on some of the savage spirit from the Middle East.

The place above all others to smash is Ploesti; about 50 miles north of Bucharest, whence run the pipe-lines from the main oil-fields to the Danube. But there are plenty of other good targets, all within easy range.

TWO PLANES LOCKED IN THE AIR, BUT BROUGHT DOWN TO A SAFE LANDING IN CANADA

These interlocked aircraft were safely landed by two Royal Canadian Air Force student pilots after they had collided in mid-air and become locked 50 ft. off the ground. The aircraft—twin-engined Avro Ansons—were gliding to a landing when the collision occurred. The pilot of the upper plane stopped his engines and the pilot of the lower brought them both to a landing. The lower plane was considerably damaged, but the upper escaped serious injury. It will be remembered a similar collision occurred a few months ago in Australia

The Turkish and Yugoslav Air Force.—The Turkish Air Force ought to be able to do the air work—scouting and short-range bombing—for its own Army in Thrace. It is very well equipped, thanks mostly to its Technical Adviser, Mr. B. Stephan, a large, amiable, and very able Hollander, who was for years Chief Technical Officer and Engineer at Soesterberg, the depot, experimental station and repair shops (Henlow, Martlesham and Farnborough, of the past, combined) of the Netherlands Army Air Service.

The Turks have a lot of Blenheim bombers which were flown out by way of Italy just before the war and in its early months. Also, I believe that they have Hurricanes. Most of their training craft are German. Their pilots are quite good, and as tough as they make 'em.

The Yugoslavs are very much in the picture also. Remembering how much smashing the Serbs took in 1914-15, and the revenge they took in 1918 when the R.A.F. bombed the Uskub road clear for them, the Germans are not likely to tie up a million men or so in bullocking their way through from Belgrade to the Vardar Valley into Greece.

The Yugoslav Air Force is good, but not very big. It was equipped chiefly with Hawker-Hart two-seaters and Fury single-seaters until 1939, and then they got some Hurricanes. Their pilots are a bit heavy-handed but very competent, and afraid of nothing. Naturally, they could not stand up to a superior force of German fighters and bombers, but if the Germans attacked them and they flew down to Greece to join us, as the aviators of other overrun countries have done, they would be a very useful addition to the R.A.F.

If the Germans start a serious thrust through the Balkans, it is going to cost them a lot of men and aeroplanes. In 1915-18 feeding munitions to the Bulgars and Turks unopposed, after they had cleared Serbian opposition from the Danube, was not too easy. But supplying their own armies through several hostile populations, and under continual attacks by the R.A.F. and Greek and Turkish Air Forces, would not be at all a summer picnic.

A Reminiscence of Castelorizo.—The appearance of the Grecian-Italian-Turkish island of Castelorizo—sometimes called Castel Rosso—in the news lately will recall memories to old-timers of the Royal Naval Air Service. On the outbreak of war in 1914 the little Isle of Man packet-boat *Ben-My-Chree* was commandeered by the Air Department of the Admiralty, under Commodore Sueter, R.N. (now Admiral Sir Murray, M.P.) and faked into a seaplane-carrier, along with the *Empress*, the *Engadine*, and the *Riviera*, off the Dover-Calais service. The three latter, with Squadron Commander Bowhill (now Air Chief Marshal Sir Frederick A.O.C.-in-C. Coastal Command) as senior officer, took Short seaplanes up to Heligoland on Christmas Day, 1914, and raided Cuxhaven and Wilhelmshaven.

The *Ben-My-Chree*, after a spell in the North Sea, was sent to the Eastern Mediterranean under Squadron Commander L'Estrange Malone, R.N. (later Communist M.P. for Northampton), with Erskine Childers, who had written *The Riddle of the Sands*—which inspired the Christmas Day raid aforesaid—as a deck officer, and Flight Lieutenant Maurice Wright, now Deputy Managing Director of the great Fairey Aviation Company, as one of his flying officers. Maurice Wright and the others used to stagger off the water in Short float-planes, loaded far above Plimsoll with petrol, to bomb the Hedjaz Railway in Transjordan, and the Turks used to sit on the top of the hills and *shoot down at them* as they struggled up the valleys of the Hills of Judea.

Malone was later replaced by Charles Rumney Samson, Wing Commander, who was fond of using Castelorizo Harbour as a resting-place for his weary men. He was always good to his people. Then one day the Turks man-handled a battery of field guns on to the top of a mountain on the coast of Asia Minor, about five miles away, and sank the *Ben-My-Chree* where she lay tied up to the quay. Her wreck lay there for years. And that was what we had to do with Castelorizo in the last war.

Tricycle Technique.—Flying technique changes a lot and—suddenly. I have never liked tricycle undercarriages for aeroplanes and never shall, because I know too much about tricycles—pedal and motor—and their trick of "shouldering over," which is worse than a straight fore-and-aft somersault. Now I hear of the front wheels, or front forks, of American aeroplanes folding up, with disintegrating results, just as I prophesied. And there has been a quick change in the technique of landing such machines.

At first, when tricycle undercarts were fitted experimentally on light aeroplanes the popular method was to fly the front wheel straight into the ground and let the two aft wheels follow as they pleased. Americans, Dutchmen and Englishmen all did it that way.

There was a good story of a designer of one such who was flying with two officers—I will not say of what Air Service—when, in landing, the officer at the stick pushed the front wheel in so firmly that it, or the forks, folded up and the machine shouldered over on its nose and wing-tip. One officer went out through the roof, one was knocked out good and proper, and the designer crawled out. When the ambulance arrived the designer had already proved on his slide-rule that the accident had never happened.

The latest technique with tricycles, especially with heavy twin-motor bombers or fighters, is to come in with the tail well down, as near stalling as is safe, as if to make an old-style three-point landing (wheels and tail-skid together). Then, when the main wheels have touched, the pilot puts the brakes on hard, and the machine see-saws gently on to the front wheel and sits on its three-point suspension, which is natural and proper. But even then I prefer the McClaren type of tricycle undercarriage which was described widely a year or so before the war. Its third wheel is behind the two main wheels, and as it is only a trailer it cannot dig in, or drop into holes.

THE R.A.F. TAKE PART IN THE ATTACK ON KEREN IN ITALIAN ERITREA

This is an official photograph just released by the Air Ministry. It shows a recent bombing attack on the important town of Keren—one of the strong points of Italian resistance in Eritrea. A stick of bombs can be seen bursting among the buildings below and the *tukles* (or native huts). Several direct hits have been scored by the R.A.F. bombers on the main railway line, which links Asmara with Agordat. (*Further details of the land operations in this fighting zone will be found on pp. 366–67 of this issue*)

Scouting for Berehaven.—Those two Germans who crashed into the hillside at Schull, near Bantry, and were properly given military burial by the Eirish Army, seem to be evidence that the German High Command are worrying about Castletown, Berehaven on Bantry Bay and Buncrana on Loch Swilly. The German bombers which go out over the Atlantic to the West of Ireland are generally big stuff with big bombs—four-motor Focke-Wolff Kuriers or Kondors—which can sink a big ship if not shot down in time. Obviously a two-seater can only have been scouting.

Probably this was a photographic scout, and was nosing down through the clouds to get a run along Bantry Bay to Berehaven. Its photographs would have shown whether the old base of the British Navy was still a deserted village or whether, despite Eirish protests, it had been seized by the "base, bloody, and brutal Saxon," as the natives call us.

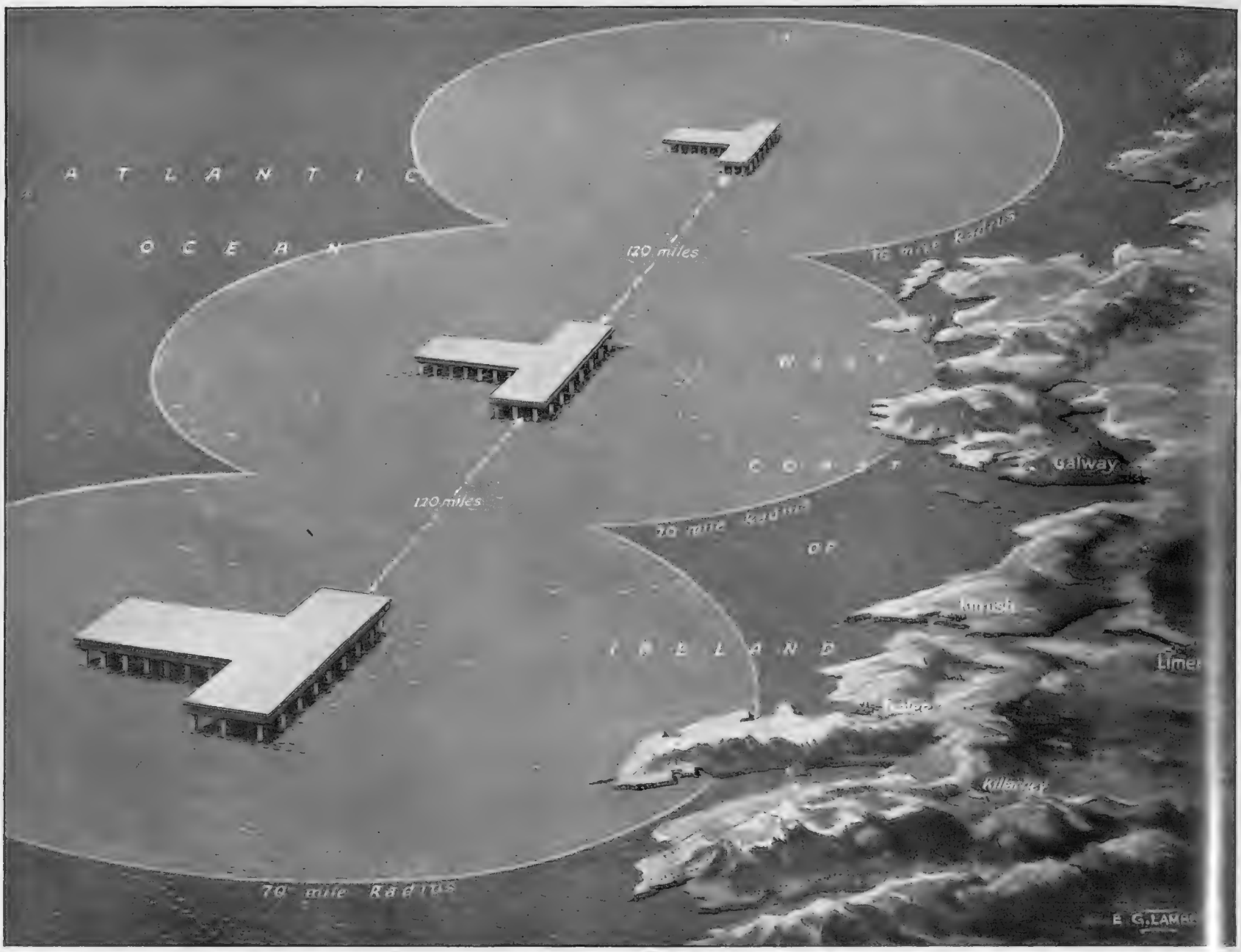
Talking of photography, when is the Ministry of Information or the Director of Public Relations at the Air Ministry going to let out some reasonably convincing air photographs? Photographs taken at home are the silly, unnatural-posed pictures which inferior Press photographers have been taking for years. A friend of mine in the R.A.F., who is a keen photographer, told me months ago that if he had been allowed to walk about with a hand-camera among the R.A.F. in France before the Defeat and during the retreat, he could have got a dozen real pictures a day—and all that ever reached this country were sheer banality. Pictures from the air are hopeless. That thing of Boulogne which was "released" (I believe that to be the official word) a few weeks ago, and appeared in many papers, must have been taken months ago. Barges are shown four and five and six deep along the *quais*. The great warehouses, called *hangars*, are obviously untouched, and so are the railway tracks. The houses right down to the *quais* show no sign of being de-roofed.

I should guess that it was taken about last July, when we began bombing the "invasion ports."

If so, the official who released it ought to be put under preventive arrest for spreading alarm and despondency. The ordinary man, thinking that it was taken within the past few weeks, would be utterly depressed by the idea that all our bombing for months had done so little damage—in fact, no damage at all. Obviously by this time everything within 200 yards of all the basins must be a desert. *We* all know what bombs do. They do *not* go through a roof, burn up the inside of a house or hangar and leave the sun still shining on the slates.

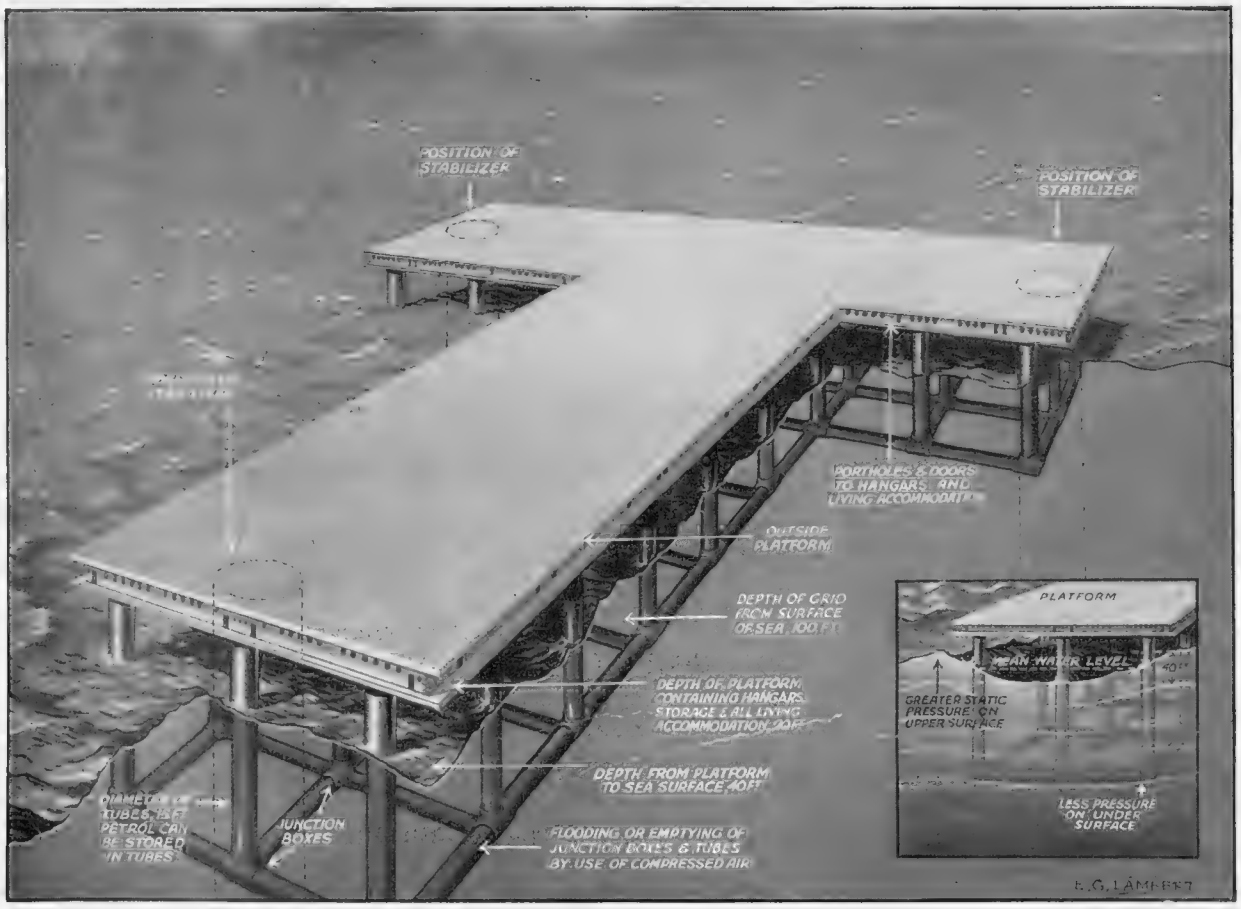
Common Sense is So Uncommon.—I forget how many weeks, or months, ago my friend, Mr. Wight, late R.A.F., now of Trinidad (West Indies—there are dozens of Trinidads in Central and South America), made the suggestion through these notes, that American aeroplanes should go from the West Coast of the U.S.A. to the Middle East direct, because it is the more Pacific route. We are now told that 43 U.S. aeroplanes were sent to Malaya in January and 19 to South Africa. That begins to look sensible.

Also 120 went to the Gold Coast—that is not a bad idea. Bombers can fly by Lagos and Nigeria, in easy stages, to Khartum (without an "o," please, if you want to be correct), and so to war in Abyssinia, Libya, or even Greece or Thrace or Asia Minor. The same paper says that 102 were shipped to Britain and 135 went to Canada. The story says that 419 "left the U.S. on British account." that does not leave any to fly across, unless some of the Canadian 135 did so. And I should think that the vast Joint Training Plan in Canada must break more than that per month.



THREE "CREED" FLOATING PLATFORMS MOORED OFF THE SOUTH-WEST COAST OF EIRE COULD SERVE AS A SUBSTITUTE FOR LAND AERODROMES

The loss of land aerodromes in south-west Ireland is such a serious matter now that the Germans are pressing their campaign against British shipping with intense vigour, that the suggestion by Mr. F. G. Creed that his floating stations would serve as a substitute comes at an opportune moment. An artist of "The Sphere" has shown here how three of these water stations could be placed in such a position as to be a material aid in the task of beating off the attack by air and sea. Fighter and observation planes could operate from these floating platforms and refuel as desired



THE TUBULAR CONSTRUCTION OF A "CREED" FLOATING STATION, THROUGH WHICH IT IS CLAIMED TO BE MADE UNSINKABLE

The platform would be supported on a series of tubular formations as shown here. The grid would float at a depth of 100 ft. below the surface of the sea; above this the platform would be placed at a height of 40 ft. above sea-level. The tubes could be ballasted with water as required. Originally, Mr. Creed's model possessed three bigger tubes or stabilisers giving the structure a triangular formation which promised increased security against any capsizing. The inventor is now disposed to do without these stabilisers. The smaller diagram illustrates how waves below the surface get shallower as the depth increases. The upright tubes undergo no changes of buoyancy, says Mr. Creed. "The longtitudinal ones do, because of a change of 'head,' the static pressure being greater on the upper side than on the under surface. This difference can be compensated by taking away part of the upper surface at the points of junction of the tubes. This is the principle of stability employed in the Creed seadrome"

A SUBSTITUTE FOR AIR BASES IN IRELAND

How Floating Platforms, Claimed to be Unsinkable by the Inventor, Could Take the Place of Land Aerodromes off the Irish Coasts

IN the issue of THE SPHERE for February 22, the idea for bringing into being a safe lane for traffic across the Atlantic was discussed and illustrated. To gain the necessary local superiority in the air, it was proposed that a number of seadromes should be placed at intervals between this country and Canada. Mr. F. G. Creed, consulting engineer, who has made a study of these seadromes, or floating stations, now proposes that a number of his floating platforms should be placed at convenient points off the coast of south-west Ireland in order to give the Air Force the landing and refuelling bases which it requires in this area. From these floating bases patrolling aircraft could cover vital areas through which British shipping approaches home waters.

The suggestion is the more interesting by reason of the fact that the designer of these seadromes definitely claims that they would be unsinkable by stress of weather and that defence against torpedo attack could be efficiently negatived. Mr. Creed has put his ideas for the construction of such floating stations before technical engineering critics and has constructed models which, at the size made, seem to answer all the calls he makes upon them.

The inventor has set out the form of his invention in a paper from which we make the following extracts. In discussing

the obvious danger of heavy wave action, he writes: "Far below the surface there is a region of comparative calm. If it can be reached, so that support can be taken from that quiet region, much greater stability can be secured. According to the trochoidal theory of waves, a 'standard' wave, 40 ft. in height and 800 ft. in length, will cause, at a depth of 200 ft., a subsurface wave only 8·4 ft. in height. If the structure can be made to ride upon that wave instead of the 40-ft. wave, an immense increase of stability will be obtained, because the height of the subsurface wave is the measure of the change of head, or change of pressure, at that point. In order to take advantage of this phenomenon, it was found best to employ cylinders sunk vertically in the water to a depth of 200 ft. and ballasted with water to the required depth.

"Since the pressure of the water on the sides of the cylinder is perfectly balanced at all depths, it follows that the whole weight of the cylinder and its contents must be supported by the pressure of the water on its bottom end.

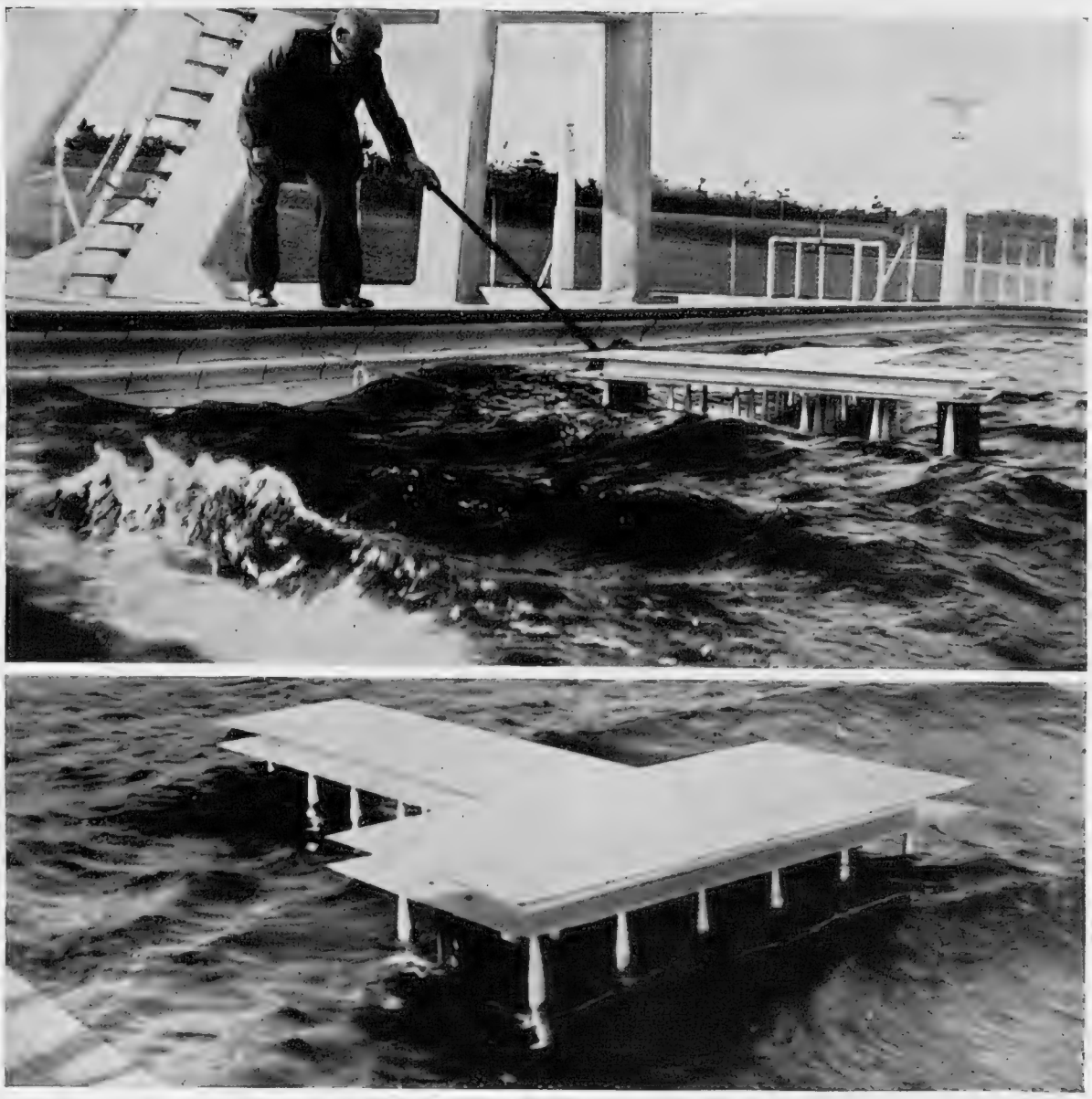
"It should be noted here that by the opening to the water of the whole of that portion of the cylinders which is below the mean surface-level, two very desirable ends have been attained. Stability has been improved and weight and cost decreased. Because there is now no difference in pressure between the inside and the outside of the cylinders (which may now be called 'stabilisers,' since that is their chief function), there is no need of elaborate and heavy staying of the interior. The walls of the cylinders now only require lateral bracing on the principle of the suspended wheel, with suitable longitudinal stiffening. The most suitable shape of deck would appear to be that of a huge letter T. The diagram shows a long, clear and sufficiently broad runway, with manœuvring space, and ramps or lifts (for going between decks) on either side." The stabilisers are, in the drawing given here, placed centrally in the three extremities of the T, and built into the tubular grid and the superstructure.

Each junction box has a watertight door on each of its faces, giving access to the corresponding sections of the grid, and to the deck; and means are provided for flooding or emptying any or all of the vertical tubes, junction boxes or grid tubes, by the use of compressed air. Compressed air can also be admitted to the tops of the stabilisers. . . .

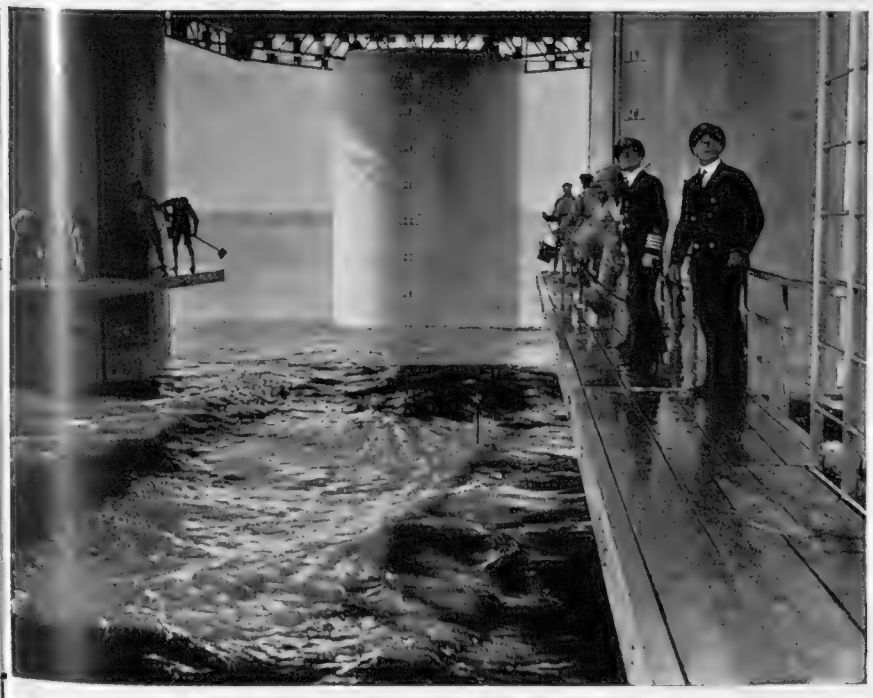
There would only be two decks, with 20 ft. of h ad-room between them, and with a 10-ft. latti e girder under-running and supporting the ower deck throughout. The upper deck wou l be clear and open except for observation and control towers and wireless masts and erials.

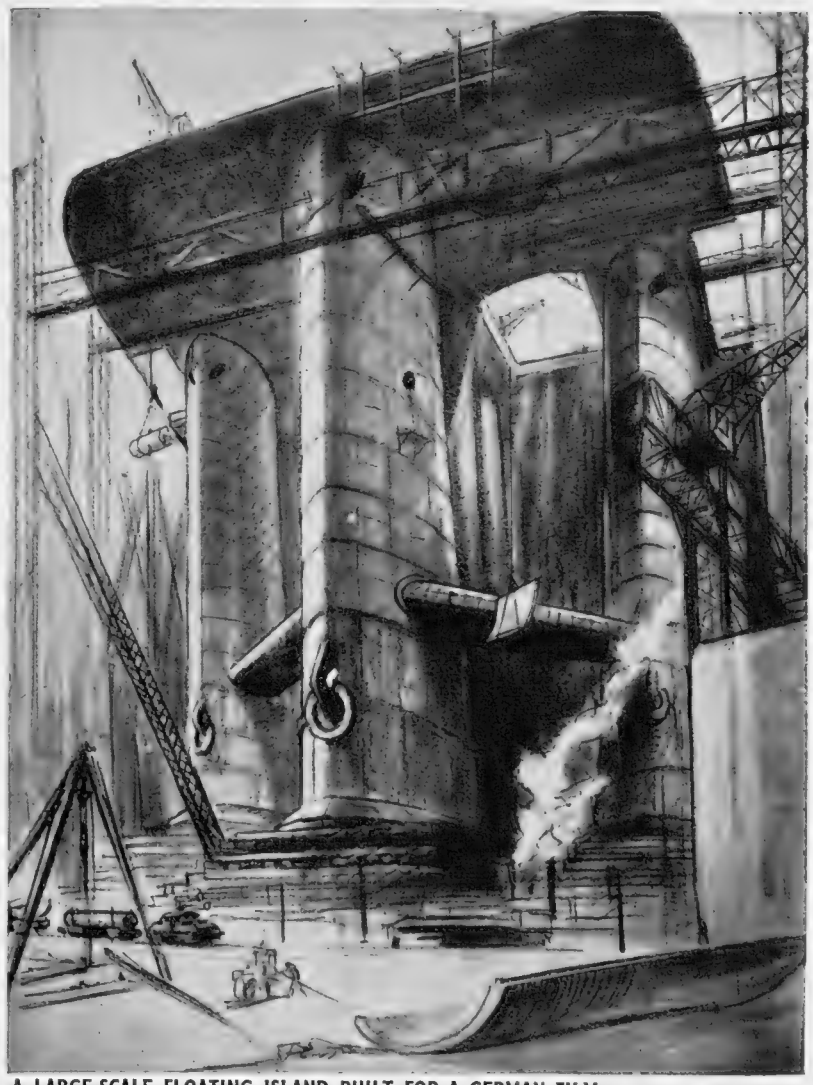
Since the seadrome would be made up of a large number of identical and simple units, and its a sembly would, on the whole, be a simple and s raightforward engineering job, it is thought that n allowance of £30-£35 per ton would be amp for the cost of the finished structure. Much would depend, however, upon the degree of ela oration called for in the superstructure and quipment.

"Mooring in about two miles of water would be by means of a buoy of, say, 1,000 tons displ cement, in the form of an upright cylin er, floating with about one-third of its lengt out of water and anchored by three cable (spaced at 120 deg.) to the bed of the ocean. Each cable would be of steel wire hree or four miles in length, with prese vative coatings, joined on the sea-bed to a very heavy chain, perhaps a quarter of a mile in length, carrying two or three heavy anchors. Each cable must be able to take a strain of 500 tons. The seadrome would swing from the buoy by a short cable. While it is known that the depth of the Atlantic along the Great Circle Route is often two or three miles, it is hoped, by echo-sounding, to find much shallower water at convenient intervals."



A MODEL OF THE CREED FLOATING PLATFORM BEING SUBJECTED TO WAVE ACTION IN A TESTING BASIN: The model was subjected to the amount of wave action shown in the above photograph, which formed part of a film taken to record the results of the test. Three stabiliser tubes formed part of the model. The model sat quietly on the surface, only a maximum heave of one inch developing and a maximum inclination of one degree, during the tests. Technical critics of Mr. Creed's scheme acknowledged that the model "did actually do all that the author claimed for it"





A LARGE-SCALE FLOATING ISLAND BUILT FOR A GERMAN FILM: That the idea of floating seadromes was not unknown to the Germans in the days before the war is evidenced by the two pictures reproduced here. They show scenes from a film, produced in the now-defunct Ufa Studios of Berlin, by Erich Pommer and titled "F.P.1 Doesn't Answer." F.P.1 was the floating island on which most of the action of the film took place; and there is a marked similarity between the ideas detailed in the film and those discussed and illustrated in recent issues of "The Sphere"

OTHER THINGS THAN WAR...

Lest We Forget—The Reign of King George V: Memoirs of a Modern Tattler: And a Note on Pests of Various Kinds

KING GEORGE V.—At this time of spring six years ago — only six years! — the people of London, England and the Empire were making elaborate preparation for the celebrating of the Silver Jubilee of King George V and Queen Mary. King George himself was worried about those elaborate preparations. "All this fuss," he often said, "about our old Jubilee." A few weeks later he realised suddenly, with complete surprise, the place which he and Queen Mary held in his people's hearts and the value which his Empire set on their life of service during twenty-five years. To-day the booksellers', publishers' and press experts will tell you that King George V and his reign and times are none of them of interest to readers in England, in the Empire, in America. If we believe them, we admit that human memory is short, a people's gratitude ephemeral, and the Democracy and the English-speaking peoples have short memories, narrow vision, frail powers of gratitude and a feeble power of logical reasoning. But I am not convinced invariably by the pronouncements of experts in any sphere of human activity.

Six years ago—only six—King George V, in one of the most moving and memorable ceremonies of his reign, spoke intimately to his Lords and Commons assembled in Westminster Hall. I believe that in 1935 no man in England was more conscious than he was of our nation's failure to make the best and wisest use of that long truce between two world-wars, and that none was more certain that it *was* but an uneasy truce and not a permanent peace. It was yet a source of comfort to him "to feel that from these times of trial there has grown up throughout our community a stronger feeling of fellowship one with another." That "stronger feeling of fellowship" sustains our Empire to-day; it helped us to come triumphantly through the first major assault on this island, it will win us through to final victory. Those who have lost interest in the reign and character of King George V have forgotten the spring from which

CROCUS TIME IN THE LONDON PARKS: The crocuses in Hyde Park, in that lovely sweep along Park Lane, are now once more at their best. They have been undeterred by bombs, shell splinters or the winter weather: they have even been undeterred by the Ministry of Agriculture's model allotment set down in their midst!

inexorable logic of historical fact a very neglected guide to a reading *of* history and *from* history. During the past 2½ years, with wartime interruptions, I was engaged in a study of the life and character of King George V. From these labours certain cardinal facts emerged and deeply impressed themselves on my mind. First; that the reign of King George V and Queen Mary has an historical significance unique in our annals. It created and established constitutional monarchy in Britain as an ideal which will yet be a pattern for Europe and has already proved the envy and admiration of Europe, and has played an inestimable part in the democratic effort for survival and for freedom. Second; that the character of King George V and his life of service were noble and beautiful and good to a degree rarely found in the records and achievements of public men. Third; that his example is still a potent factor in our war effort.

The service and example of our present King and Queen—which are beyond praise in mere words—derive a measure of inspiration from the example set by King George and Queen Mary in the late war. Youth and health enable the present King and Queen to shoulder cheerfully always, and always bravely, an even heavier burden of labour and service. But King George V and Queen Mary laboured also to the limit of their powers of endurance. Fourth, that no student of history can conceivably study the present war without seeing that the latter half, if not the whole, of the reign of King George V was one with it and indivisible from it, was but a prelude to the war of 1939, the first vital chapters of the history of the present war. And, lastly, that the British Throne, transformed by King George V by his personal character and example into the sole surviving link and symbol which, after the Statute of Westminster, bound together and held together our great Commonwealth of Free Peoples, may yet be acclaimed the most important single factor in producing the victory which will assuredly be won for freedom and democracy in the months ahead.

Six Years Ago.—For these reasons, I myself conclude that if the "experts" are correct and that the reign and life of King George V to-day possess no topical interest for readers or thinkers in the Empire or in America, then indeed that fellowship, that great impulse to victory, derived much of its force and purity.

GAS-MASKS FOR LONDON'S HORSES: The gas-masks specially designed for horses have just been tested by the National A.R.P. Animals' Committee for London. This is the latest approved type; and here is the method of its fixing

Those Were the Days!—Everybody who is anybody (so they tell us) is discussing Captain Marochetti's memoirs, *Rich in Range*. The author, with fine impartiality, has allowed his publisher to call his book the recollections of a snob (among other things). There is no quarrel with that description. The book is rich in those gems which that type of memoirs is expected to wear. It is also a human document, and an historical document, which features some of the causes which led up to the present war. I am not going to review it here. I shall merely append a few notes and queries. 1. The author is wanted for murder—of an old chestnut. If ever an old chestnut was murdered in print, his version of the old story of the angry cabman dropping his fare at the Bachelors' Club is done to death with a blunt instrument (i.e., without the point). Page 177. 2. There is on page 125 an anecdote about the late Lord Birkenhead which no man of decent feeling can read without distaste. 3. The author quotes from "an admirable essay by Harold Nicholson (sic)" wherein the essayist recounts an interview with J. B. Balfour during the course of the Peace Conference. . . .

Who was this "J. B. Balfour"? In my view the writing of a book of any sort is quite a serious matter and should be treated seriously by all concerned in its writing, publication, reading and criticising. There are far too many books.

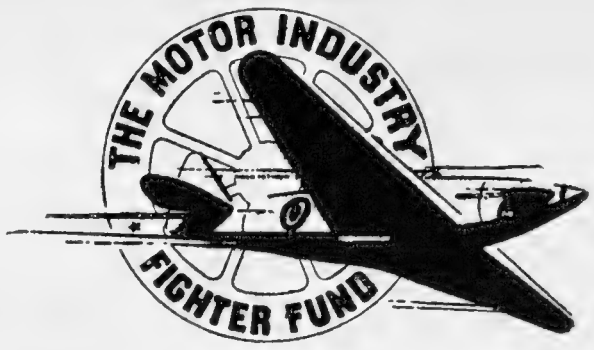
Parachutists and Parasites.—Our local plans for mopping up the Nazi parachutists are reasonably well advanced. We still need guidance in our plans to liquidate other nasty parasites and pests. None of my library of current war literature, which fills a long shelf, gives me any light on how to deal with those inexcusable thugs, the jays. I have been at them for ten years, they have annually taken a 50 per cent. toll of my apples and raspberries, and I am no wiser about how and when to decimate them than I was in 1930. Any hints would be welcome. Shoot 'em, says you. Cartridges, remember, cost 2½d. each; jays fly shoulder high for choice. Shoot their nests when the eggs are in them? Those nests are very difficult to spot, as are the nests of grey squirrels. Trap them with break-back rat traps? You can only try that dodge once and on a young jay at that. The old birds are far too clever. There will be more than ever this year, for there was far less covert-shooting done, and the fruit will be of more importance than ever before. If any reader can give me a hint of how to get to work, I shall be grateful. Up to now, I have managed to shoot (very riskily) about a dozen a year in summer, and that has hardly scratched the surface of the trouble.

Summer-Time Run Riot.—For fourteen weeks from May 3 it is decreed that we shall put the clocks on two hours. The "ordinary mortal" (if such there be, if so controversial and antiquated a term can be justified) who is usually called at 7.30 a.m. will be called at 5.30 a.m., and will go to bed about 8.30 p.m. For the first time for decades the middle-aged black-coat will dabble in the summer dew, and see and feel the freshness of a summer dawn "before the milkmaids are up." But the milkmaids will long since have turned the long-suffering cows' night into day and their own day into night. The farmer is in despair and not in revolt only, because he is the salt of the earth.

The gains outweigh the losses. War weapons output is given bare preference over food output — a fearful decision. The new hours will enable two daylight shifts to be carried out in factories. All travel will, of course, be in daylight. At one period of summer there will be no need to black out your house until everyone in it is asleep.

How will all this affect the "ordinary" woman's domestic economy? I think it will, pro tem., abolish the 8 o'clock dinner, if it still holds sway. There will, no doubt, be breakfast at 8.30 a.m. (i.e., 6.30 a.m.); luncheon may be postponed to 1.30 (i.e., 11.30); a high tea at 6.30 (i.e., 4.30) should serve for young and old alike, and the grown-ups can make shift with a snack of sorts about 10.30 (i.e., 8.30) when, like good children of fourteen or so, they go to bed. Apart from business considerations, I think many of us will for a time at least enjoy the experience of once more putting "the hour of the milkmaids" on our maps again, always provided that the summer is kind and warm and fine. For what middle-aged man does not regret the weakness and flabbiness which have so long severed him from the loveliest of all his youthful experiences, the magic hours when he went birds'-nesting at dawn, and washed his feet in the dew of the meadows on a May morning? But what are such joys set beside the hardships added to the farmers' lot: the obvious milking difficulties and the less generally recognised dilemma of the hay harvest which will be gathered in at a heavy cost in overtime?

J. G.



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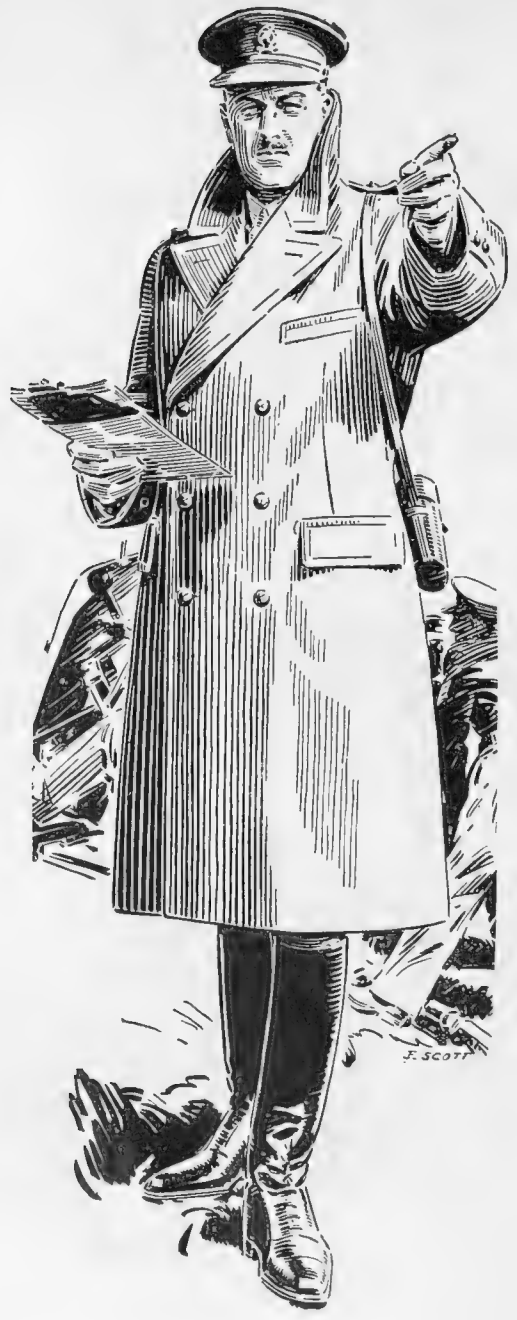

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The World of Books—By Vernon Fane

ALL CLARE ON THE WESTERN FRONT

A. G. Street Goes Back to the Farm; The Subtleties of Kathleen Coyle

AS I was reading Miss Clare Boothe's EUROPEAN SPRING (Hamish Hamilton. 10s. 6d.), the news came through that President Roosevelt had signed the Lease and Lend Bill. On page 32 of that book I found this passage: "Isolation is the unwelcome compliment America pays the British Navy. We Americans are not going to see anything straight until we realise that—until we realise this is *our* war. After that we can debate all we want whether the smart thing for us to do is to fight it."

That conversation took place on a day early in March 1940. Miss Boothe was on a liner bound for Naples. She was on her way to Europe to see things for herself, and being the wife of Mr. Harry Luce, the millionaire proprietor of *Time, Life* and *Fortune*, she was well able to obtain facilities for doing so. The speaker of that piece is described by the author as an oil man. He crops up all through the narrative.

So much has happened since the oil man said that, so much more has happened since it was written: a good deal has happened since the book was published. It may be that the ranks of the Interventionists are not now in America as thin as they were. The Lease and Lend Bill has certainly redeemed the President's pledge of everything short of war. What goes on from now may be determined in the imminent Battle of the Atlantic.

Miss Boothe landed in Naples, did not stop there and went on to Rome. Italy was not in the war. In Rome the Pinchbeck Cæsar was oiling his stiletto for the moment when his feared neighbour, France, would be prostrate enough to be stabbed in the back.

Miss Boothe met Ciano. He was easy to get on with. They had both in their extreme youth written one unsuccessful play. He knew all about first-night agonies and bad notices. He also had a "bland, handsome, even-toothed smile," and was proud of his knowledge of American slang.

Then she went to Paris and talked to all the kinds of people who were to be met in Paris in that uneasy spring. She also went to the Maginot Line, and indeed, for a moment, it was All Clare on the Western Front.

On May 9 she was in Brussels, and on the following day Brussels was raided for the first time. The Battle of France had started. Norway, Denmark and Holland had gone. She came to London.

"The first thing I found out in London, June 1, was that everybody was enormously proud of their second splendid evacuation." She also found that the English, "in early June, insensibly, once again relaxed their efforts, drawing much comfort from the fact that the Germans were headed definitely towards Paris."

Miss Boothe, being in the happy position of a looker-on, was evidently seeing a clear angle of the game. If this was really the English attitude, what on earth had happened to the Prime Minister's fighting speech? "We shall fight on the beaches, in the fields, in the streets, etc." For what reason had a million men sprung to service in the L.D.V.s? Could it really all be so easily summed up in these pictures of unshaven, muddy, sea-water-soaked warriors who came right off the Dover train, "to pop into lunch or dinner at Claridge's or Quaglino's or the Ritz?"

Miss Boothe sums up her English vignette by saying that she will never know whether an English friend who said to her, "You see, my wife does not *believe* in the Germans," was really pulling her leg! She told that story to the oil man, who drove her to Heston Airport. "I do not understand the British at all, at all," she said. "It just makes me so ill and so mad. Don't they, for God's sake, know what they are in for?"

"'How would it help them if they did?' he asked.

"I answered miserably: 'I don't know.'

"He said: 'Exactly. Do you think they will take it when it comes?'

"I replied impatiently: 'Why, yes, of course.'

"I mean, *really* take it; from John o' Groats to Land's End, until there is hardly an English home standing, or an Englishman left alive?'

"I said: 'You know, I think they will.'

"He said: 'Then you have found out the only fact worth knowing here.'"

And so to Lisbon and back to America. Back to the debate as to What is It All About: What is Democracy: Will America Fight Now or When She Has To?

Miss Boothe had definitely set out to collect impressions from unconventional sources and to record them in the light of her own questing personality. Her conclusions, and those of the varied people whom she encountered, are interesting and instructive. But it is all rather like looking at a moving-picture record of the preliminaries to an operation one has since been through.

Nine years ago Mr. A. G. Street fluttered the literary dove-cotes with a book of which everybody knows the title, *Farmer's Glory*. Mr. Street was indeed a farmer, but he was soon to become a popular author, a well-known broadcaster and a writer upon whose words on agricultural and country problems a huge public waited. He was different from so many of those others who painted the sights and sounds of the countryside in delicate prose for nostalgic urban dwellers.

WESSEX WINS (Faber and Faber. 8s. 6d.) is his own account of how he a farmer, became enmeshed in the world of publishers, editors, agents, reviewers, authors, broadcasters and all the rest of them who people the world of a successful writer.

Came the war (if one may borrow a phrase from the film-caption writers) There was work to be done and different kind of work. The work, in fact, closest to his heart. Down on his own farm, men had been called up With what he records as deep satisfaction he found that his land needed once more the imprint of the master's foot. Wessex won.

Mr. Street is always good value on country matters, and in this book he demonstrates that he can be as good value on the well-worn theme of the literary scene. While he is digging for victory there will be no time for the other business, but we are glad to observe that Wessex will not win completely, for there is a hint that there may be other books.

On the wrapper of IMMORTAL EASE by Kathleen Coyle (Gollancz. 9s.), we are told that the author is a writer of such subtlety that for our own sake we must watch her eagerly. The warning is well placed.

Immortal Ease is the life-story of Victoria Rising; a poet; an aloof, elusive genius. She was that type of genius who pursue their seemingly wayward course and who bring trouble and even tragedy to those about them. She lived on an emotional plane of her own, always elusive, always aloof, except in the progress of her own intense emotional life. Then, whatever she touched she upset.

In a sentence she divorced her first husband, married again, drove a young man to suicide, left her second husband, and pretended to be dead, but turned up again to prove that she was not.

With all the disadvantages set forth in that plain statement, Miss Coyle seeks to prove that, although she may have been "as beautiful as a goddess and as heartless," she was a genius who, "for some of us, still makes music behind the hills," and that what was known as her hardness was her modern quality. She derived it directly from the few people with whom she was intimate, who were on her own level. Their sincerity and strength was of such a standard that it was no wonder it led ordinary people to misunderstand her.

This is far from being an easy book to read, but it has a quality of deep understanding, a number of strongly defined and brilliant character portraits, and is good measure for those who can allow themselves to become immersed in the remarkable story of Victoria Rising.

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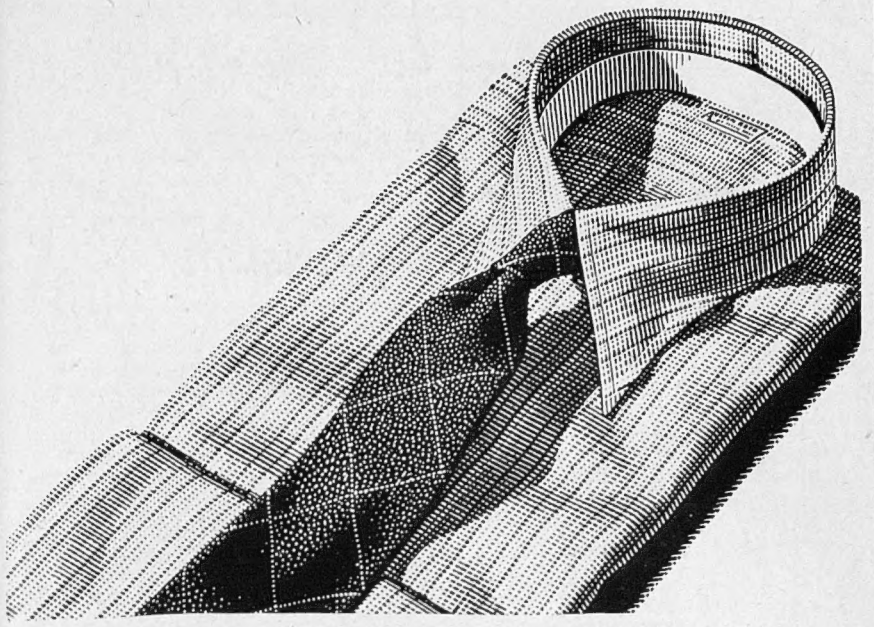

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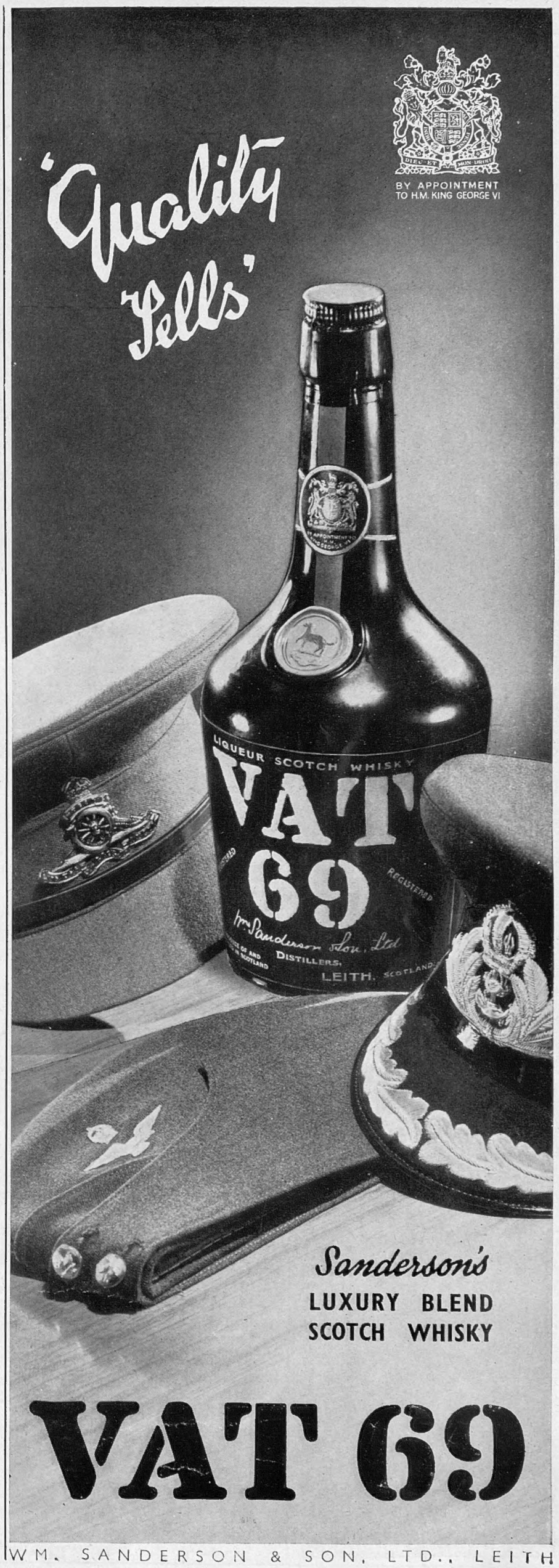

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In Quest of Good Hotels

By ASHLEY COURTENAY

THERE are quite a number of people in the hotel, inn and guest-house business who started in it, not so much to make money, as to give expression to their ideals of how such places should be run. Certainly the practice of the arts of making people comfortable is a very laudable pursuit, if only the public would show some measure of appreciation.

Unfortunately, those who pay expect a say. They forget that an hotel or guest-house can never be fully a substitute for home, and if they cannot blend their mode of life to their surroundings, they should take active steps to move to somewhere else where they will not be continuously striking a discordant note.

Many hotel and guest-house keepers unburden themselves to me about their grumblers; but their ideals still persist, in spite of the state of mental despondency they have been driven to. It is after such conversations that I feel what a happy state of affairs would be effected if I only knew my public as well as I do my hotels, and so could be sure of sending the right people to those places I have particular regard for.

Yet how little I know of my readers. Their letters seeking my advice give me such scanty information on which to work. Rarely do they cite hotels they have liked as a clue to style. They are vague on the district they seek, and almost always I am told that "the terms must be moderate," though I am left to guess by the handwriting and the class of letter-heading what their ideas of moderate terms are likely to be.

Sometimes I meet some of my readers, and how different they are to what I expected. And how different I must seem to some of them. The other week I was introduced to one who greeted me by saying: "I always pictured you as a benevolent old gentleman." Benevolent I may be; but not old—as yet.

So to sum up. If you want the best advice, you must tell me more of your likes and dislikes. I have a dual reputation to uphold, and I cannot afford to let down either the hotel-keeper or the hotel-seeker.

It may be that my theme this week has been prompted by two visits I have paid to two entirely different classes of places, though each was actuated by the same ideals of running their places as perfectly as war conditions would allow. The first was The Old House, a guest-house at Cerne Abbas, on the Dorchester-Sherborne road, about eight miles from the former town and eleven from the latter. Cerne Abbas is a sleepy, peaceful sort of place, but ideal for those who can appreciate the advantages and disadvantages of living in the country. The real country-lover is far too much in love with rurality to worry about train and bus services, mud underfoot, and an occasional nor'-easter finding its way through the crevices of a sixteenth-century house, especially when there are people running it who are prepared to give you the earth if it were possible. And that, to my mind, is exactly what Miss McLean and Miss Bowen, who own this attractive guest-house, are prepared to do so far as it is humanly possible. Both of them love the country for all that the country can offer. Yet both are also appreciative of such modern comforts as the certainty of a cheerful bedroom at the end of the day, endless hot water, cooking that is interesting, and that kind of good service only to be found in country homes.

All these attributes are to be found at The Old House, war conditions permitting. The service may vary, but visitors should welcome the opportunity of being able to do a little fetching and carrying for themselves. But I very much question whether those who have stayed there since the war realise how fortunate they are.

Additional to being in the comparative safety of the country, they are being catered for in a way that would be impossible in a town. Gallons of fresh milk daily, dozens of fresh eggs, fresh vegetables, fresh everything, for the two partners run a home farm in conjunction with the guest-house. Add to this the fact that Miss McLean has a mania for cooking and turning out interesting dishes, it seems that anyone who is fortunate enough to get into The Old House is in clover.

But *are* people appreciative? Very, very rarely, and yet I am convinced there are plenty of war workers who would give much to know of this pleasant Dorset countryside, and this small, but soul-satisfying guest-house, where hospitality sits with gladness in full measure.

My next visit was to a private hotel at Bournemouth—Crag Head, on the East Overcliff Drive. Several readers have mentioned this hotel to me from time to time, but it was only last week that I found an opportunity of visiting it.

Originally built as a private residence by a well-to-do business man, who was blessed with common sense as well as capital, Crag Head has to-day all the characteristics of an exceedingly well-built private residence, plus all the best features of a well-run hotel. It is an hotel so quietly beautiful that one fears the use of the superlative. For one cannot easily forget the wood panelling, the solidity of the finely balanced oak doors, the wide stairway and corridors, the proportions of every room and—the vista of seascape and landscape from the upstairs rooms.

Nor can one forget, as one descends the stairway, the feel of comfort which pervades the main lounge, and the view of the grounds beyond. Taste, thought and endless personal trouble pervade Crag Head at every turn. It all boils down once more to the fact that, given the right building, the right site and resident proprietors who understand the art of making people comfortable, an hotel will be almost always full, because praise well deserved drowns the destructive criticism of the inveterate grumbler.

Talking with Mr. and Mrs. A. R. Baiden over lunch (and I must pay tribute to the beauty of their china), I was amazed to hear that anyone should dare to grumble amidst such a comfortable setting, lest they be asked to leave.

The *only* solution for those in their wrong setting is to give them a week's notice, and let their room to someone who would be appreciative. For my part, I shall be delighted to recommend Crag Head, for my reputation for sound advice would be enhanced by so doing.

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters, accompanied by a 2½d. stamp for reply, should be addressed to him, c/o the Editor, THE SPHERE, *Commonwealth House, 1, New Oxford Street, W.C.1. Personal and telephone inquiries, however, cannot be accepted.*

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